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ABSTRACT

A symposium was held in Berne, Switzerland, in March 1996 to define the key competencies that secondary students should acquire to prepare for either employment or higher education. This document summarizes the symposium discussions of plenary sessions and working groups, comprised of teachers and school managers. The conference participants discussed the following issues: (1) clarifying the concept; (2) defining competency requirements in the context of current education systems; (3) identifying the priorities and key competencies; (4) acquiring competencies by doing; and (5) assessing the link between the structure of education systems and the purpose of evaluation. The participants concluded that underlying the question of key components is a whole set of interrelated problems. Educators and policymakers must also consider an education system's long-established curricula, teaching methods, and school contexts. Appendices contain a summary of three papers: "Competencies and Knowledge" (John Coolahan); "Individual Competencies and the Demands of Society" (Gabor Halasz); and "Introductory Notes" (Jean-Francois Perret). The symposium program and a list of participants are also included. (LMI)

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Key competencies for Europe

Berne, Switzerland, 27-30 March 1996

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Report of the Symposium

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A secondary education for Europe

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Strasbourg 1997

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Only questions related to national defence are excluded from the Council of Europe's work, and the Organisation has activities in the following areas: democracy, human rights and fundamental freedoms; media and communication; social and economic affairs; education, culture, heritage and sport; youth; health; environment and regional planning; local democracy; and legal co-operation.

The **European Cultural Convention** was opened for signature in 1954. This international treaty is open to European countries that are not members of the Council of Europe, and it enables them to take part in the Organisation's programmes on education, culture, sport and youth. So far, 44 States have acceded to the European Cultural Convention: the Council of Europe's full member States plus Belarus, Bosnia-Herzegovinia, the Holy See and Monaco.

The **Council for Cultural Co-operation (the CDCC)** is responsible for the Council of Europe's work on education and culture. Four specialised committees – the Education Committee, the Committee for Higher Education and Research, the Culture Committee and the Cultural Heritage Committee – help the CDCC to carry out its tasks under the European Cultural Convention. There is also a close working relationship between the CDCC and the regular conferences of specialised European ministers responsible for education, culture and cultural heritage.

The CDCC's programmes are an integral part of the Council of Europe's work, and, like the programmes in other sectors, they contribute to the Organisation's three over-arching policy objectives for the 1990s:

- the protection, reinforcement and promotion of human rights and fundamental freedoms and pluralist democracy;
- the promotion of an awareness of European identity;
- the search for common responses to the great challenges facing European society.

The CDCC's education programme covers school, higher and adult education, as well as educational research. At present, there are projects on: education for democratic values; history; modern languages; school links and exchanges; the reform of secondary education; access to higher education; the reform of legislation on higher education in Central and Eastern Europe; academic mobility, and educational documentation and research.

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* Albania, Andorra, Austria, Belgium, Bulgaria, Cyprus, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, the Former Yugoslav Republic of Macedonia.

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COUNCIL FOR CULTURAL CO-OPERATION (CDCC)

A SECONDARY EDUCATION FOR EUROPE

Symposium on

"Key competencies in Europe"

Berne, Switzerland
27-30 March 1996

General Report

by

Mr Walo HUTMACHER

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Foreword

The symposium was held in Berne from 27 to 30 March 1996 as part of the project entitled "A Secondary Education for Europe", and brought together representatives from all the countries in Europe. More specifically, it followed on from the Porsgrunn (Norway) symposium that had addressed "Contents and methods in secondary education". In that context, it had proved necessary to define the core content: "*If the new beneficiaries of secondary education are to be given a chance to succeed, it is important that the knowledge they are expected to acquire (the core curricula) be accurately defined (...) the very notion of "core" needs further investigation, for there is still disagreement over its exact meaning.*" There was in fact a need to do so in every subject taught, and to develop an interdisciplinary, even cross-disciplinary plan.

In the invitation to the symposium, the links with those that had gone before were again stressed:

"It is evident from the preceding symposia that one of the essential questions underlying the reforms concerns the definition of key competencies that students should acquire in order to prepare for either employment or higher education. The Berne symposium will therefore set out:

– to plot the course taken by current reforms in relation to these issues;

– to try to clarify the problems associated with defining key competencies."

By borrowing navigational terminology, the invitation to plot the course suggests a need to find one's bearings, to obtain a more precise knowledge of one's own position and, by extension, to analyse the question and look closely at the situation.

Four experts contributed their insights to the session. Jean-François Perret wrote an introductory note on the concept of competency. In his review of the relationship between knowledge and competencies, John Coolahan focused on how the learning of competencies is made possible. Gabor Halasz then explored the relationship between individual competencies and the demands of society. Lastly, through an examination of the relationship between the processes of learning and applying knowledge, Bernard Rey proposed an original approach to the issue of key competencies, based on an analysis of some of the main vectors of European society.

These contributions are appended. They informed and guided the discussions in the symposium and the working groups. The comments that follow were inspired by them either directly or via the work of the working groups.

The symposium generally comprised teachers and school managers working alternately in plenary sessions and working groups. This report reconstructs their discussions without keeping slavishly to the chronological order, focusing instead on the main issues raised:

1. The beginnings of clarifying the concept

   What is meant by competency? What is the present state of our knowledge? How can we reach agreement on what that notion means?

2. How and why does the question of competencies relate to schools?

   An attempt to define the issue in the context of present-day education systems.

3. What are the priorities? What are the key competencies?

   How difficult is it to agree on what should be seen as key competencies?

4. The acquisition of competencies: learning by doing.

   How are key competencies and other competencies acquired? And how can acquisition and mastery of them be evaluated?

5. Does the structure fit the purpose?

   Does the way in which schools and education systems are presently arranged suit the aim of encouraging the acquisition of key competencies by the majority of pupils?

I. The beginnings of clarifying the concept

The term competency is currently widely used in everything that is said and written about education and teaching. It figured in the title of this symposium and in the invitation. However, it has not always been commonplace in education systems or secondary schools. To describe what these were expected to convey to pupils and students, the notions of knowledge and values used to be (and still are) more usually used, and in earlier times perhaps, those of belief or faith.

The use of the notion of competency has spread recently. Nowadays, managers and experts glibly employ it when they speak of what is supposed to be, or ought to be, the purpose of schools and education systems. And they do so as if the notion were self-evident. The

symposium itself provided examples of this "everyday use". In his speech of welcome, the Chairman of the Swiss Conference of Heads of Public Education Departments referred to the five fields of competencies set out in the secondary school curriculum for preparation for university entry. For his part, the Council of Europe representative stressed the five sets of key competencies to which the Council attached particular importance. Neither speaker felt the need to spell out what was meant by competency.

Although the notion of competency has become widely accepted, it did not prove so easy in the symposium and the working groups to agree on a rigorous common definition.

Part of the reason doubtless lies in language differences. In every language, there are a profusion of terms, and polysemy. There is only a marginal difference between the following:

skill, competence, competency, ability, mastery, craftsmanship;

compétence, capacité, maîtrise, aptitude, savoir-faire, qualification, art;

Kompetenz, Fertigkeit, Fähigkeit, Qualifikation?

Communication is hampered by the potential of European multilingualism for misunderstanding, confusion and "noise", in this as in other fields. There is also a great wealth of nuances.

It is also necessary to take into account the differences in experience, education, background and situation of the participants who, quite by chance, came together from all parts of Europe at a given moment at a symposium on a complex issue. This element of chance is of relevance since, as will be seen below, this issue concerns the way in which each person views the process of becoming a human being and learning, and the way in which he or she sees the school's mission and looks at how schools are organised and can operate in their own particular circumstances. An international symposium is thus an opportunity to shuffle together ideas, to pool experience and points of view, and to compare different countries' and participants' situations. The clarification of concepts sometimes involved a process of destructuring, occasionally giving rise to a sense of confusion.

There did appear to be agreement that the notion of competency lies fairly firmly within the field of "knowing how" (*savoir faire*) rather than "knowing that" (*savoir*). Competency is a general capability *"based on knowledge, experience, values, dispositions which a person has developed thorough engagement with educational practices."*[1] *Competencies cannot be reduced to factual knowledge or routines; to be competent is not in all cases synonymous with*

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1. J. Coolahan, *Competencies and knowledge*, see Appendix I.

being knowledgeable or cultivated. The way in which Noam Chomsky employs the term is instructive: he uses it to convey the infinite variety of sentences which human beings are capable of formulating from a limited number of elements of language. From this point of view, any linguistic act appears to demonstrate a more general capacity to generate utterances which fit a situation.

Following on from this idea, but within a yet wider conception, Pierre Bourdieu[2] has put forward the concept of habitus to describe the continual, transferable disposition to perceive, think, evaluate and act which is internalised by a human organism in the course of, and by way of, his or her experience of interaction with a specific social environment. In any case, the adaptation of human conduct to the infinite variety of life situations is linked to a general capacity to "mobilise, in a given situation, the knowledge and experience acquired"[3] in the course of an individual's existence within a collective life history.

The purpose of clarifying concepts – which remained unfinished – lies in that it lets us see more clearly, that is, both to make distinctions and to see links. With the notion of competency, we are immediately faced with something complex, with at least three overlapping and interdependent aspects: firstly, the complex relationship between knowledge and action – and secondly, an element of volition in competency, or at least in its manifestation, since the knowledge and experience acquired are "mobilised".

There is, lastly, a distinction between competency and performance. Performance is "doing" in a given situation. It is the manifestation of a competency or capacity (or capability), and of a more general disposition to act, or of a potential for action in a given situation. However, only performance is observable; competency (or habitus, as the total set of competencies) is a characteristic which can only be inferred from the observation of action – from performance.

Performance is thus seen as competency in action. Competency is what enables performance, or action. By taking Pythagoras' theorem as an example, Bernard Rey suggests that competency should be considered as the capacity to establish a relationship between an item of knowledge and a situation, and more generally as the capacity to discover the procedure (knowledge and action) which suits a problem. On the basis of the findings of the sociology of knowledge and social psychology, he nonetheless stresses that the capacity to generate practice or performance does not remain constant in the same individual in different life situations, or between subjects in similar situations. He emphasises particularly the effects of context. Since contexts are necessarily charged emotionally, existentially, ideologically and politically (albeit to varying degrees), they are not simply "givens" but are subject to the perceptions and interpretations of the persons involved. In any case, it is unwise to indulge

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2. P. Bourdieu, *Le sens pratique*, Ed. de Minuit, Paris, 1980.

3. J.F. Perret, *Introductory notes*, see Appendix III.

in too much cognitive or instrumental reduction of the notion of competency. Observation of performance cannot ignore the question of meaning, especially the meaning given to situations by subjects, the implications which they see in them and the interpretations which they place on them.

How can agreement be reached on a common concept? Towards the end of the symposium, the rapporteur of one of the working groups expressed the view that it had become even more confused in the course of that debate. When a group of people from very different backgrounds is confronted with such a complex task, it is likely that feelings of that nature will emerge. As opinions and experiences were compared and contrasted, the discussions in the symposium both demonstrated the interest in the issue and the difficulty of agreeing on definitions and their various implications for schools. Although a few things became clearer, there remained more questions than answers.

Some participants may perhaps have realised that the relationship between knowledge and action runs through the entire history of schools and education. Montaigne already reproached the teachers of his day with producing heads that were full rather than well-made. This age-old continuity might even lead the more pessimistic (or the more cynical) to close the file. History may be thought to have demonstrated the inability of schools – based on instruction and subject knowledge – to prepare pupils to act, or more precisely, to prepare them to show intellectual and practical competencies considered suited to the differing occasions and circumstances of life.

The matter under discussion and at issue today, here as elsewhere, goes to the very heart of how schools and those involved in them perceive how human beings acquire competencies. The human sciences, from psychology to sociology, and including psychoanalysis and social psychology, have measurably enriched and complicated both the question and the answers in recent decades. What research on the physiology of the brain is teaching us about the structures and functioning of that central organ of mental and emotional development may well cause further disruption.

But the findings of science do not *ipso facto* produce ready-made applications in education. Among other reasons, this is because the dialogue between researchers and practitioners is not institutionalised in education in the same way as in other fields. It is also because the dialogue reflects commitment. Because of the consequences it may entail, it is never exclusively cognitive. Thus, there is general approval in principle for the encouragement given to schools to regard their basic mission as the acquisition of higher-order competencies by all pupils. However, the consistent application of this principle would entail a fairly major upheaval within the fabric of academic relationships. In particular, to focus on what pupils do, and on their experience and the meaning which they give to it, would be to admit that pupils are actors in the system, with specific obligations and rights. Many academic habits would be

overturned, and the structure of established interests inevitably affected. School practice is traditionally based far more on the figure of the teacher and on the transmission of knowledge constructed and presented by teachers than on pupils' (re)construction, acquisition and internalisation. The difficulty of coping with the reversal of perspectives inherent in the new conception of learning can sometimes lead to resistance to the rearrangement of roles and positions that would result from an examination of the question.

Moreover, it is curious that the symposium discussions also failed to address that other accepted meaning of competency, the original meaning that implies authority to act – the recognised power and authority of someone over things of people.

A simple juxtaposition of two lists of synonyms for "competency" and associated terms is, however, convincing evidence that there are in fact two distinct registers:

knowing how to do:	talent	being able to do:	qualification
	aptitude		authorization
	capacity		licence
	know-how		authority
	disposition		power
	art		attribution
	genius		delegation
	cleverness		responsibility
	skill		nomination
	dexterity		power to act
	experience		influence
	mastery		right
	astuteness		permission

One of the registers describes individual capabilities, and the other the power to act granted by society. The competencies acquired, and the aptitudes, individual talent, genius and mastery that are recognised are thus linked to power, to authority or permission to decide and to act in particular fields or situations.

This blind spot in the discussion concerning the social distribution of the power to act deserves to be looked at in passing. Should it be regarded as chance? Or is it rather a trait that is symptomatic of the habitus of school people (experts, heads and teachers in secondary education) such as those participating in the symposium? Does it reflect the particular sensitivity of that milieu towards questions of power and inequality? It is tempting to think so if one recalls the tension created by the suggestion made by G. Halasz that the competencies to be acquired should be set out in a hierarchical order according to levels of social responsibility.

All the working groups were somewhat uncomfortable with this proposal, and some rejected it politely but firmly. More time should be given to investigating what appears to be a taboo in schools on questions of power and social inequality.

II. How and why does the question of competencies relate to schools?

The description of what pupils should acquire in terms of competencies is thus not a mere choice of terminology, but implies different ways of thinking about the purpose of education. The shift in usage evident in the spread of the notion of competency in the sense of know-how deserves a moment's consideration, therefore, because changes in jargon often reflect more profound changes in education systems and their environments. Four of these changes appear relevant in this context:

1. First, on the fringes of education systems. It seems in fact that recent emphasis on competencies (or know-how) has entered the world of schools from that of business and employment. Over the last few decades, this world has considerably refined and formalised its concepts and techniques of evaluating and managing human resources. Faced with very large-scale competition and the rapid transformation of knowledge and technology, the world of business has invested increasing amounts in the development of what is currently called "human capital". In major companies, in particular, modern management methods are always a major factor in the management of human resources. In some fields, the cost of continuing training may be as much as 10-12% of the total wage and salary bill. Most occupations and jobs are defined by more or less detailed lists of competencies, which are used for recruiting new staff, for "detecting future talent" for promotion, for "assessing personal skills", for determining the need for continuing training, and for evaluating posts and staff. These lists have been subject to formalisation, making it easier to discuss concepts, to review them periodically, to adapt them and to negotiate over them.

   It is quite understandable that businesses, in rapidly changing environments, should primarily be interested in their potential know-how, and should from time to time carry out a collective assessment of their competencies. The question did not enter educational systems via vocational education by chance since, firstly, *the skills which used to typify the exercise of a métier are no longer considered adequate. It is also necessary to know how to anticipate difficulties, to take decisions, to co-operate and to adapt what one does. The current uncertainty over how occupational activities and employment will develop only serves to strengthen this demand for general competencies.*[4]

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4. J.F. Perret, *Introductory notes*, see Appendix III.

A recent European Round Table of Industrialists confirmed that even in basic vocational training, a more general orientation henceforward offers a better promise of a future than the traditional narrow conception.

2. *Within education systems, the enormous curriculum reform effort required over the last quarter of a century to update content and to adapt it to accommodate developing knowledge leaves one feeling both dissatisfied and uncomfortable. The dissatisfaction arises from the fact that these reforms, which have been largely based on the principle of adding more, have not only accelerated the inflationary growth of material but have also helped us to lose sight of how the whole programme is organised. The discomfort results from the finding that, in a regime in which knowledge is rapidly obsolescent, curricular reform is never finished. Instead, it has to become a permanent activity of education systems without indefinitely adding to the inflationary trend. A process of defining priorities is called for, and has to transcend the competition played out between teaching subjects. A number of ideas have been put forward to define the central core of education: core curriculum, range of competencies, basic skills, basic ways of thinking, key skills, etc.*[5] These terms are not interchangeable, and the order in which they are placed does suggest a trend: from the definition of items of knowledge which build on each other towards more general skills which make use of them.

3. The acceleration in the production of new knowledge and in the cycle of obsolescence of old knowledge has already been felt by more than one generation, and there is wide agreement that this trend will continue for the foreseeable future. There is a growing conviction that future generations, even more than those currently at the helm, will have to learn throughout life. There is an ever firmer requirement that initial education should make everyone capable and desirous of learning in this way. This is, moreover, strongly (re)affirmed in recent publications and ministerial statements from the European Union and the OECD. In the knowledge and information society, the knowledge acquired will thus tend to become less important than the capacity to acquire new knowledge. This seems to be a challenge facing education systems, not all the implications of which have yet been assessed: the priority given to secondary education and the use of what is now a commonplace expression, learning to learn. In a way, both occupational activities and social, political and cultural life increasingly presuppose mastery by all of the tools of intellectual work previously reserved to the few. We shall come back to this.

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5. J.F. Perret, *ibid.*

4. Lastly, the change of usage in education systems is also part of a slow transformation in the way in which those systems are managed and governed. There is a sort of contradiction between the aims and methods of management. There are plenty of statements of intent which assign a high-flown, demanding purpose to education systems and schools that is nonetheless general and vague. It is increasingly defined in terms of capacities, competencies and qualities which pupils, all pupils, should acquire. But with respect to how they are run and regulated from day to day, schools usually give less space to aims than to methods, and less to the pupils than to the teachers. The example of the curriculum is instructive from this point of view. Curricula are instruments for the guidance and co-ordination of what teachers do in teaching pupils; in the normal course of school activities, they tend to become bureaucratic prescriptions and reference documents, against which checks can be and are indeed made. (Has a teacher "done the work"? Have the pupils got the ideas and the knowledge?)

   Furthermore, in any mention of knowledge, curricula and syllabuses, there is an emphasis on the teacher's standpoint. As soon as competencies are mentioned, the stress is on the pupil or student who has to acquire or develop them.[6] The promotion of the notion of competency is in its way part of the attempt to find a way of managing education systems that will emphasise the aims of teaching expressed in terms of pupils' learning.

III. What are the priorities? What are the key competencies?

In his introductory notes, Jean-François Perret gave a – very provisional – list of competencies split into seven domains: learning, searching, thinking, communicating, co-operating, getting things done, and adapting oneself. There were 38 of them. Thanks to the presentations and group work, the list at least doubled in the course of the symposium. This is not surprising if one thinks of the variety and wealth of fields of human activity, and of the number of people who have the authority to comment on the subject. There is a risk that the list of competencies thought necessary or desirable will expand indefinitely and undergo the same process of inflation as that of the knowledge which is supposedly indispensable in life. A previous research trend that followed the behaviourist, positivist tradition in the United States in the 1980s succumbed to this atomisation.[7] Its product-oriented approach, based on performance and product, is nowadays thought too reductionist and "atomistic". It is not enough to measure a few events or performances in order to be able to infer general competencies.

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6. It is certainly possible to speak of teachers' competencies, but it is obvious that these are to be found in a different register from those expected of pupils and are among the resources placed at the disposal of the latter.

7. See J. Coolahan, Appendix I.

In the search for essential or priority competencies, the focus then shifted to what might be called "broad-spectrum" competencies which offer a certain universality, and whose field of application is neither too limited nor too specialised. These are what might be called key competencies in the sense that they open the door to other competencies with a more specific application. But where should the line be drawn in this growing generality? While having a certain degree of generality, key competencies have to be defined so that they can actually be taught in an educational process. Otherwise, there would be a return to vague, general statements of aims.

One other question cannot be avoided: key competencies for whom and for what? There is no doubt that the choices and priorities are heavily influenced by the views of whoever defines the key competencies and of the persons for whom they are defined, and by the contexts in which they are implemented. The formulation of competencies always expresses the expectations and aims of the education, which in turn depend on the interests, risks and opportunities of the protagonists. A few examples will demonstrate this.

The Council of Europe defined five sets of key competencies to which it attached particular importance, and with which schools should "equip" young Europeans:[8]

1. Political and social competencies such as the capacity to accept responsibilities, to participate in group decisions, to resolve conflicts in a non-violent manner, and to play a part in running and improving democratic institutions.

2. Competencies relating to life in a multicultural society. In order to check the resurgence of racism and xenophobia and the development of a climate of intolerance, education must "equip" young people with intercultural competencies such as accepting differences, respecting others and the capacity to live with people of other cultures, languages and religions.

3. Competencies relating to the mastery of oral and written communication, which are essential for work and social life to the point that those who lack them are henceforward threatened with social exclusion. In this same register of communication, the mastery of more than one language is taking on growing importance.

4. Competencies associated with the emergence of the information society. The mastery of these technologies, the understanding of their applications, strengths and weaknesses, and the capacity for critical judgment with regard to information disseminated by the mass media and advertisers.

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8. Opening address by Mr Maitland Stobart, Deputy Director of Education, Culture and Sports in the Council of Europe.

5. The capacity to learn throughout life as the basis of lifelong learning in both occupational contexts and individual and social life.

G. Halasz,[9] who approached the topic from the angle of building a European society, suggested defining key competencies on the basis of an analysis of "major challenges facing Europe":

- The preservation of democratic, open societies, which requires continual effort and places a heavy burden on individuals.

- Multilingualism and multiculturalism, which presuppose the mastery of more than one language and the capacity to understand and respect differences.

- Economic challenges, which notably carry the threat of being unemployed and having to retrain, and which presuppose a growing capacity for people to handle information, besides an expansion of "computer literacy".

- The labour market increasingly calls for the capacity to work independently, to identify problems and to find solutions to them, to manage one's time, and to take on responsibilities.

- The development of complex organisations (businesses, government departments, hospitals, schools, etc.) in which thousands of decisions are taken every day, the quality of which depends on the competencies of the individuals and groups which take them, and in particular on their capacity to analyse complex situations, to communicate and to conduct arguments.

- Economic changes increasingly demand analytical aptitudes informed by the social and natural sciences, and in particular the capacity and desire for lifelong learning.

The frames of reference for these two lists overlap to some extent, although the second gives greater weight to economic aspects than the first.

B. Rey put forward a different approach, which is perhaps somewhat less sensitive to changes in the economy and public opinion.[10] He enquired into the possible ways of "being" that are typical of our civilisation: these are essential for young people in contemporary Europe, and schools are involved in perpetuating them. By way of examples, provisional and non-exhaustive, he described in particular two "views on the world", two "key purposes" that are

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9. See Appendix III.

10. See Appendix III.

typical of our civilisation, namely scriptural thought (writing) and rational thought. From this point of view, writing is not only an individual technique or competency but a means of appropriating the world that typifies a civilisation since, among other things, it enables one to list, to identify, fix, classify, memorise, compare, create a distance between the writer and the written, etc. Since ancient times, it has been part of the organisation and instrumentation of the view of the physical and social world, and of its order (and disorder). Meaning is given to all the activities of a school not only by scriptural thought but also by intelligibility, the view on the world which shows that it can be grasped by reason, that is, by the free exercise of judgment, with no recourse to force, the power of authority or seduction.

Beyond their immediate instrumentality, these two forms of thought inform and direct the way in which the world is seen, and properly speaking they provide a key to reality (including the personal world) as it is perceived by our societies. The anthropological aspect of this approach also brings new meaning to the learning of writing and rationality because these are described as ways of being in the world and go beyond mere know-how. There was insufficient time to explore this angle in depth, any more than the others. But it did spark off particular interest among the participants as these views were perceived as "broad-spectrum competencies" that fitted in with the major tradition of modern education systems, and made it possible to expand the meaning of teaching and learning beyond immediate instrumentality. Several working groups also suggested completing the list of key goals, purposes, especially in the field of imagination and aesthetic activities.

The aim of the symposium was not to produce a list of key competencies, but to explore the meaning of the concept. It nonetheless seemed worthwhile to find out whether there was a common point of reference among the fifty or so participants, i.e., a set of competencies regarded by the majority of the participants as having priority or being important. A questionnaire based on J.F. Perret's list was distributed for this purpose. The participants were invited to look at it from two standpoints: the competencies judged important for all young Europeans, and those thought important for building Europe. The complete results are given in the appendix, on the understanding that they must be read with the greatest circumspection, given the context and the chance composition of the group. Below, by way of illustration, are the ten competencies which were most often included in the list of priorities by this "sample" of teachers and school managers.

Without wishing to attach too much importance to this somewhat haphazard list, we can nevertheless stress that by comparison with those that preceded it, the competencies that are formulated are clearly far more operational and closer to what happens in schools. The earlier lists moved rather in the realms of overall aims. It may also be of interest that none of the competencies that had been suggested in the domain of "searching" was among the first ten selected. Finally, in this exercise, five competencies were among those most often chosen from both the individual angle (for all young Europeans) and the collective angle (the building

of Europe). These are the mastery of languages and new technologies, listening to and taking into account others' points of view, relating the past to the present – and the capacity to face uncertainty and complexity.

Competencies of importance to all young Europeans	**Competencies of importance for building Europe**
Co-operating: being able to co-operate and work in a team	Communicating: understanding and speaking more than one language
Adapting oneself: being able to use new information technologies	Co-operating: managing disagreements and conflicts
Learning: being able to resolve problems	Getting things done: demonstrating solidarity
Communicating: being able to listen and to take others' points of view into account	Thinking: exercising one's critical spirit towards one aspect or another of our societies
Searching: consulting different sources of data	Adapting oneself: being able to use new information technologies
Communicating: understanding and speaking more than one language	Thinking: relating past to present events
Getting things done: taking on responsibilities	Thinking: being able to face uncertainty and complexity
Learning: organising and inter-relating one's knowledge	Co-operating: being able to co-operate and to work in a team
Thinking: being able to face uncertainty and complexity	Adapting oneself: demonstrating flexibility in the face of rapid changes
Thinking: relating past to present events	Communicating: being able to listen and to take others' points of view into account

This example is obviously only of interest for the procedure adopted. If bankers, industrialists, artisans, pupils' parents, churchgoers or artists had been asked, the replies would doubtless have been different again. To what extent? A carefully prepared empirical approach would provide an answer to that question.

But however informative such an investigation of general trends might be, there is no good reason to think that expectations and demands would converge. In the final analysis, the determination of priorities will depend on a balancing of interests, which must be a political matter. The symposium enabled participants to agree on this point, with the wish widely expressed by the participants that such choices should be neither too instrumental nor too one-sided, from an economic, civic, cultural or social point of view.

In a different respect, the symposium also confirmed what the earlier lists had already shown: problems and priorities differ noticeably between the countries with a long tradition of democracy and a market economy, and the countries in transition. Both these groups of countries are exposed to the threat that the foundations of democracy (citizens equal in rights and obligations) will be eroded by the growing instability of people's lives associated with rising unemployment and exclusion. But in the discussions it was also emphasised that the first group faces the threat of indifference towards humdrum democratic institutions, an indifference that arises from the very fact that they are traditional and from the feeling that things have always been as they are, that they go without saying, and that no effort need be made to keep them up to date. Very differently, in the new democracies, tradition has left behind a set of attitudes and competencies that are sometimes at odds with proper democratic functioning or are incompatible with it. A number of representatives of these countries stressed that "everything is still to be done" to build a stable democratic order.

IV. The acquisition of competencies: learning by doing

In pluralist, democratic societies that are subject to rapid transformations, the debate on the aims of schools never really comes to an end, and this is a feature of political debate. The symposium discussions also emphasised the permanent tension between long-term prospects, which are the context of schools and the changes affecting them, and the short-term view often perceived and expressed by young people and their families, and by other partners of schools.

It is, however, not enough to proclaim what schools are expected to achieve, even in terms of the competencies and mastery which children and young people should acquire. Rather, by overemphasising the debate about opportunity, there is a danger of neglecting the question of feasibility. While it is legitimate to require results in terms of competencies acquired by young people, it may become excessively instrumentalist if equal attention is not given to the processes by which individuals become competent.

The acquisition of competencies rests on the learner's experience and actions. That was a point of agreement between the experts and most of the participants, based indeed on the theories of learning that they had learned at some time (Piaget, Vigotsky, Bruner, etc.). It was thus closely linked to the conditions under which pupils learn and work. In order to learn to do something, we must do it. To learn to communicate, there is no point in listening to learned lectures on communication: we have to communicate; lectures may help afterwards or alongside to arrange what we learn from experience in good order. One cannot learn to speak a foreign language without speaking it; or to use a computer without switching it on. There can be no credible wish to educate young people in the competencies necessary for the functioning of democracy in a school that is run in an authoritarian manner, where pupils and

teachers have no means of putting forward their ideas and views. In other words, if the aim is the acquisition of competencies by pupils, it is not enough to draw up curricula and teaching methods for the various subjects. The acquisition of competencies depends on learners' being active. The notion of the formal curriculum conflicts in this case with that of the real curriculum,[11] the total learning which results from pupils' experience in life and everyday work in school, and from their intercourse with their teachers, schoolmates and acquaintances.

By adopting this perspective, one can also discover what competencies pupils and students acquire from the work and experience which are their usual portion nowadays. J.F. Perret, for example, investigates the competencies acquired and employed by pupils in order to cope with being evaluated: *Almost every day, young people find themselves in the position of having to demonstrate not so much what they can do as what they have learnt. This means that they have to learn just what is required, taking care not to misjudge what the teacher expects, and then to succeed in showing what they know, in letting the teacher think if possible that they know a bit more, and in any event to avoid being underestimated – in short, to give a good impression.* For pupils, this is a vital skill, but learning it does not figure in any curriculum. In secondary education in particular, the principles of active education have scarcely taken root. Face-to-face, whole-class teaching still strongly predominates. But by listening to teachers, we acquire the competency of listening to teachers, since listening is also an activity. More generally, by being pupils, we learn, for example, to live by the rhythm of lessons, and to change our field of interest on command (moving from a German lesson to gymnastics and then to mathematics). We learn to give the impression of being present even if we find the subject matter of the lessons boring, and to spot the peculiarities and requirements of each teacher. We learn to cheat the system, to get a good average, and to prepare for tests by matching the amount of effort to the importance of the subject, the time of year and our earlier results. Recent research on experience in *lycées* shows that in many schools, pupils also experience adults' mistrust, and even contempt of them.[12] If we examine the role of the pupil more closely, we realise that it is composed of numerous competencies acquired by long experience of specific relationships in school. There is still much to be done to identify competencies of this type – and they are not always the competencies intended.

Being in school has by definition a major cognitive dimension, but this is not exclusive. An approach which aims at the acquisition of competencies is often even in danger of adopting "*a short-cut approach, whereby it is thought that worthwhile skills and competencies can be acquired without an immersion and serious engagement with the relevant domains of knowledge and experience,*" as Coolahan suggests. This engagement depends on the meaning which pupils and students give to the activities and learning that they are offered.

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11. Philippe Perrenoud, *La fabrication de l'excellence*, Droz, Geneva, 1984.

12. François Dubet, *Les lycéens*, Ed. Seuil, Paris, 1991.

Terminology varies with respect to this notion of meaning; some people speak of motivation or interest, others of values, and yet others of emotional charge or moral commitment. This choice of terminology is not insignificant: the perceptions of human existence which they reflect deserve to be examined more closely. But it is important above all to emphasise that if experience is to generate competencies, it must make sense to pupils, and not only to teachers and school managers. From this point of view, pupils are doubtless no different from other workers, particularly those who work with their brains. More often than is supposed, difficulties and school failures are "breakdowns in meaning" rather than real intellectual inabilities to learn.

Teachers also recognise this question when they say that "you can lead a horse to water but can't make it drink". This saying is rather contemptuous and fatalistic. Teachers who resort to it seem to mean that it is not their business to construct the meaning of what is to be learnt, or to "negotiate" the meaning with their pupils, and that there is nothing they can do about it: it is nothing to do with them. From a systemic point of view, we could say that by refusing thereby to be part of the problem, they deprive themselves of the opportunity to be part of the solution.

We are not pleading for a libertarian school, but for an active school. In this context, participants stressed that the teacher's role is no less important in schools which encourage pupils to be active. But it is different. Terms such as "animator" and "moderator", even "coach" for pupils' activities clearly show the general direction of the changes intended. They also emphasise the importance of teachers' personal commitment to what they do. Liking and being liked come in here, too: it is important that pupils feel the interest which teachers have in the knowledge and competencies that they are trying to make them acquire. At all events, the discussion showed that it is, once more, necessary to avoid making teachers scapegoats; rather, the tendency to reduce the job to a routine should be more rigorously examined, and the very frequent cases of "burn-out" regarded as signals of a possible breakdown in meaning in the job of teaching as well. Teachers are also workers who ask to for some meaning in what they do, and the way in which they construct meaning is also dependent on the structure in which they work.

In this context, we have to come back to the question of the status of intellectual work and the social image of the job as work. Most people who work with their brains know that they are craftspeople, and that reading, thinking, analysing, drafting and writing take time, and require method and effort. But in our tradition there is a curious tendency to hide this laborious aspect, and to lay the stress on the product rather than on the process of production, and to value apparent ease to the point of pretending that knowledge and competency are somehow immanent, innate and God-given. This disposition, which overlooks the process of creation and stresses social achievement, ignores the very process by which intellectual competency has been acquired. Teachers themselves rarely talk to their pupils about the work that has

gone into their preparation, their uncertainties, experiments, mistakes and revisions. Pupils only ever have in front of them, therefore, models which appear easy and which leave out the years of training and effort that have led to mastery. How should pupils know about that the work behind a course or a creative piece of work if the production process is systematically hidden from them?

In the "knowledge society" which we can see coming, the role of schools will change. They will without doubt have to regard intellectual work as something to be done: identifying, observing, naming, making distinctions, classifying, describing, communicating, speaking, reading, writing, systematising, modelling, analysing, interpreting, evaluating, assessing, judging, distinguishing between knowledge, opinion and belief, drawing conclusions from analysis for thought and action, etc.: a vast range of activities and knowledge. As they become more complex, the economy and social, political and cultural life will require general knowledge of that type, which is what schools are designed to provide. Society will thus become more dependent on schools and the education system.

How should these competencies be evaluated? On this point, the discussion did not often escape from traditional academic stereotypes. The evaluation of competencies seems a far more complex task than that of cognitive knowledge: the conceptual and practical tools are still embryonic. Measuring competencies poses the problem that they cannot be observed as such, and that even the teacher can only infer competency from the pupils' performances that can be observed. These performances are always tied to the context. Many attentive teachers are, moreover, surprised to see some of their pupils fail tests or examinations, because they thought them competent from their own observations. Ability to pass examinations is another of those competencies that figure nowhere in the curriculum, but which are vital at school. Drawing up valid indices of performance which will serve to infer competencies poses complex conceptual and practical problems, which teachers should be called on to help solve as soon as possible so that evaluation can be thought of at the same time as objectives. It is a matter of finding practicable tools on the basis of what can be seen. In this field also, it is not possible to become competent without making experiments, analysing them, thinking about them and correcting them. Donald Schön's notion of the reflective practitioner comes into its own here. But since there is a considerable amount of work to be put into individual schools and between schools, a division of the burden is called for. Collaboration in teams which include experts, and in networks of teams seems the most promising way forward.

At the symposium, the discussion nonetheless remained largely focused on certification, i.e., evaluation of what has been acquired which provides evidence to third parties. While the acquisition of competencies is a process in which the learner is directly engaged, it is important to make use of evaluation as a means of constantly monitoring the process rather than purely as a means of making a final judgment. During the process, learners should not feel lacking or stigmatised as "useless" when they make their first mistake (unless the

intention is to discourage them and to persuade them to give up!). What is called formative evaluation comes into its own here: evaluation serving primarily to diagnose what has been learnt and what is missing, and to give feed-back to pupils so that they can correct their approach, go back over the work and start again. Of course, that does not rule out summative evaluation and certification. In the field of evaluation, as elsewhere, it appears that secondary education is somewhat behind primary, where distinctions between different kinds of evaluation are taking root.

V. Does the structure fit the purpose?

Rethinking the context in which pupils work also means examining how schools lay down how that work should be organised above the classroom level. This includes the situations of those involved, their rights and obligations, the methods of communication and participation, the apportionment of time and space, the grouping of pupils and teachers, etc. A number of participants, for example, remarked that a division into lessons is not always compatible with optimum learning conditions. Sometimes it would seem preferable to arrange learning in blocks (whole days or even whole weeks) for the learning of languages and even other subjects, especially the arts. In particular, the organisation of "workshops" in which pupils are active requires greater periods of time than one or two lessons. The experiences reported seemed promising in this respect.

Some of the routines which guide what teachers and pupils do are to be found in the ways in which curricula are organised, time and space are apportioned, grouping is done, tests and marks are scheduled over the year, and teachers and pupils move on from one year to the next. These are so much part of the sometimes age-old traditions of schools, and of the common perception of how schools work, that no one pays any attention to them any longer. Each of these arrangements can doubtless be justified and has its *raison d'être*, but they are structural limitations placed on the organisation of pupils' work. There is no check to ensure that these limitations are fully in harmony with the aims and ways of working of a school that sets out to encourage the acquisition of competencies in the manner outlined above.

The symposium working groups stressed the importance of opening schools to the world of work, for example, to the community (and to families). It is quite understandable that there should be a desire for more frequent interaction between pupils and their teachers on the one side, and the working environment and life outside school, on the other, both to enrich experience and to give added meaning. This idea is not particularly original. It is frequently put forward, and is seldom queried in principle. However, it hardly ever becomes reality. Where does the opposition lie? The arguments against are based on the incompatibility with timetables, the holding back of the curriculum, the resistance of teachers, questions of responsibility and security, parents' mistrust or anxiety, the absence of interesting places to

go, etc. These arguments cannot be simply brushed aside. But it is clear that even the smallest innovation in this environment seems to upset a whole system of constraints, rules, rights and obligations, and closely interwoven interests. Moreover, it is as though no one were in control of the system: teachers say that they have no authority over these matters, school heads say that they are powerless against the teachers, and/or that they fear recriminations on the part of parents and the authority, the authorities for their part find it difficult to lay down new rules in these areas of everyday practice within the schools, and so on. The system seems to be paralysed.

It is true that in most countries, the number of rules has grown in the last 40 years, particularly as a result of the expansion of schooling, which has brought about a veritable change throughout the entire education system that is felt especially in post-compulsory secondary education because new populations have arrived in the schools and colleges.

In the process, education systems have come to be thought of as "enterprises", or at least as large organisations, particularly if the pupils are seen as workers and actors – which increasingly makes sense, especially in secondary schools. The methods of managing these large formations, inherited from the armies and the industrial Taylorism of the last century, often seem unsuited to the requirements of present-day society, and even less appropriate to the society that we can see coming. A careful re-examination of the regulatory regime, with a little more flexibility, should be carried out in many cases. It is not certain that all the regulations have been thought out in relation to the ultimate purpose of schools.

The symposium discussions repeatedly emphasised the need to stress and even to encourage bottom-up, rather than top-down initiatives in the reform process. Greater participation by teachers and pupils, and more power for them to take decisions, would be desirable. A comparative analysis of attempts made in this direction should try to find out whether and how such participation creates dynamic discussion, and helps teachers and pupils to take back competencies and structures, leading to greater effectiveness.

The contradiction between management methods and purpose was often alluded to in the discussions, without always been treated as a specific topic. The method of governing education systems has remained predominantly bureaucratic in many countries. This means, among other things, that guidance takes the form of prescribing what should be done and how (through regulations, directives, curricula, etc.), and that the evaluation of teachers' (and pupils') work emphasises conformity with what is prescribed. This style of guidance and regulation may be contrasted with another, which would encourage the prescription and checking of the purpose, but would leave the methods to the responsibility of local professionals. This is the predominant style to be found in the fields of medicine and research, for example. As has already been suggested, this is the only style of regulation which is compatible with education systems that aim to let pupils acquire high-level competencies. It

would certainly mean redefining the rules of the game between the strategic policy centre and the schools. The centre would lay down the goals and the missions of schools and their professional staffs, and would grant them the necessary resources. It would delegate to relatively autonomous schools the responsibility for choosing and implementing the means of achieving the goals, taking into account their particular contexts, and working with them if the need arose. While this style of leadership and regulation is widespread in business, it is still rare in education.[13]

Conclusions: in praise of complexity

Some participants perhaps felt that the presentations and discussions were only making them more and more confused. By stressing the clarification of the concept of competency and its implications, the symposium revealed that while it may clearly be indispensable, it is not enough to proclaim key competencies to be the general purpose of education. No one opposes this goal even though, in many countries, the necessary political process of defining and specifying the intended competencies (in the widest sense of the word) has still not been gone through. For both individuals and collective groups, it is becoming vital to educate young people so that they are prepared to master indispensable cultural, technical, intellectual and social knowledge and know-how. But in many fields, this comes back to wanting education to be successful for all young people at a level currently attained by only a few.

One thing leads to another: behind the question of competencies or key competencies is a whole set of inter-related problems. If they are to adhere to a goal of demanding education for the greatest number, education systems and schools have to query not only curricula and teaching methods, but also the ways in which they operate, which are often long-established. The goal of educating pupils in competencies requires that their situation and experience of school be taken into account to a far greater degree than in the tradition of transmitting knowledge and beliefs, and that the ways in which they are involved and participate in the educational project be re-examined. The role and place of teachers will change: while they will become more responsible for pupils' school careers and learning, they will also have to take greater control over the conditions under which they and their pupils work. Control over time, space and grouping is particularly crucial. There then arises the question of how schools function and, at an overall level, that of how schools and the education system are guided and governed.

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13. The experience of a number of countries in this field deserves particular attention (notably the Scandinavian countries, France, the United Kingdom and Spain).

Most of the detailed suggestions made in the symposium were not very new in essence. Many things have already been tried out or piloted more or less widely. In the course of the symposium, some markers were laid out for the future, and some issues were identified that will still need reflection, clarification and discussion among specialists, and between them and professional teachers and managers.

The symposium did, however, make the complexity somewhat easier to grasp, in the sense that "everything hangs together", as the participants frequently stressed. Complexity is above all *the inability to make things any simpler*[14] *(if the danger of reductionism or partial omission is to be avoided). It means thinking about the acquisition of competencies and pupils' experience at one and the same time; thinking about the cognitive and the emotional together; thinking about the classroom at the same time as the school and the entire system; and thinking about the part and the whole, the specific situation and the structure, the short and the long-term, bottom-up and top-down approaches, the school and its environment, etc. simultaneously, without confusing them.* Perhaps the greatest challenge to schools, and the key to their progress, is to adopt a systemic approach.

14. Edgar Morin, *La Méthode*, vol. I: La nature de la nature, Ed. Seuil, Paris, 1977.

Appendix I

Competencies and knowledge

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1. The Contemporary Schooling Context

With lifelong learning becoming a reality for all rather than a slogan, the provision of education, the nature of education and access to education, all become more significant issues. The attention to education will remain, for it has become the key to opportunity for individuals and society. The critical nature of much of that attention will also remain, since the defining for education of what constitutes worthwhile learning will remain a contentious issue (OECD, *The Curriculum Redefined: Schooling for the 21st Century,* 1994, p. 35).

The society of the future will, therefore, be a learning society ... the countries of Europe today have no other option ... (but to make a) more substantial investment in knowledge and skills. ... the level of skill achieved by each and everyone will have to be converted into an instrument for measuring individual performance in a way which will safeguard equal rights for workers as far as possible (EU White Paper, *Teaching and Learning Towards the Learning Society,* 1995, pp. 1, 2).

Such statements in key, recent documents by the OECD and EU highlight the centrality of education as an area of debate and concern in contemporary society, imply a confidence in the role of education, but also indicate a concern about the worth and outcomes of the education system.

Over the last quarter century the educational systems of developed countries have been undergoing profound change in a variety of ways. One of the most striking changes has been the massive expansion in access, participation and retention rates in secondary and higher education, leading to what has been termed "the schooled society." This has been accompanied by an unprecedented demand for more education and re-training by the general population which is creating the foundation for the move from the "schooled" to the "learning" society, with the concept of lifelong learning winning support from politicians, industrialists and trade unions.

In line with demands of contemporary living and significant changes in other social institutions such as the family and the churches, the role of the school has also expanded greatly. The socialisation and pastoral care (affective education) roles of the school have become more emphasised for its heterogeneous clientele. Linkages between the school and the external world of work have been growing while the school is also playing an important role in differentiation for occupations and as a selection mechanism for work and higher education. The accelerated pace of knowledge expansion in association with the impact of the communications and information technology revolutions have had implications for both the content and processes of school programmes. As might be expected, perhaps the most sustained initiative over recent decades has been the continual efforts at curriculum and assessment reform in the schools. The content of school subjects has been updated in the light of new knowledge, some subject areas have gone into decline and many and extensive

claims are made for the inclusion of new elements in school curricula. There is no shortage of pressure groups who look to the school to provide for needs seen as important for satisfactory living in modern society. The traditional expectation of the school to promote the moral, intellectual, aesthetic, vocational and physical development of the pupil is being pressurised by a very varied agenda.

A striking feature of many of the large scale curriculum reform initiatives, frequently devised on a top-down, cascade model, has been the relative lack of success in achieving their ambitious objectives. There is much to learn from the experience of recent decades and one significant lesson is the inadequate attention to complex issues of implementation and follow-through planning. Any new wave of proposed reform needs to be aware of the halo effect of crusading enthusiasm, to be self questioning, to be close to the "bottom-up" perspective of school practitioners and to be sensitive to the great variety of school contexts and circumstances which exist across Europe.

In the context of the massive investment of resources in terms of money, time and expertise by society in its education system and with the greatly increased expectations of what schools should do, it is not surprising that efforts would be made to establish whether the education system is providing those who participate in it with the outcomes, qualities, orientations, and competencies which are regarded as important for the individual and society. From time to time, informed commentators have cast doubt on the ability of the school system, at least as traditionally structured, to be able to deliver on the educational goals which are sought. Apart from the radical deschooling movement of the late 60s and early 70s, works such as Philip Coombs' *The World Educational Crisis* (1968), Torsten Husen's *The School in Question* (1979) and Howard Gardner's, *The Unschooled Mind* (1991) serve as periodic reminders of these doubts[1].

However, as indicated in the quotations at the beginning of this paper, international organisations and, indeed, individual countries retain confidence in the education system and see it as having a pivotal role in the development of individuals and society. Increasing emphasis has been placed on the "quality" of education as is instanced in OECD studies, *Schools and Quality* (1990), *Schools under Scrutiny* (1995), *Measuring the Quality of Schools* (1995), *Performance Standards in Education : In Search of Quality* (1995). In the context of a widescale movement for greater accountability in public services and a desire for measurement and transparency of educational outcomes, much emphasis has been placed on the operation of performance indicators and greater quality assurance mechanisms. There is a detectable strong emphasis from economic and employment policies in much of the debate. Of course, it is legitimate that governments and international bodies should be concerned with the quality of education and the standards achieved by participants in the schooling system and the links between the achievements of school graduates and the role they will play in the working and social arenas. However, there are dangers that a too narrow approach to such outcomes may be applied resulting in a distortion of the educational enterprise. In other words, the indices of quality which are adopted need to be in harmony with the integrity of the educational process, and first principles need to be addressed on the nature of knowledge and on the formation of competencies.

A significant emphasis within modern educational research has been that focussing on school effectiveness and on strategies for the implementation of educational change. A valuable feature of this research is its closeness to the dynamics of the internal life of schools and to the elements which seem to make for successful living and learning environments for pupils and teachers. The "bottom-up" perspectives which emerge throw much light on school climate,

staff morale, good leadership, goal achievement, the quality of the teaching-learning encounters and on indices of school success. Coupled with the insights from works such as Michael Fullan's *The New Meaning of Educational Change* (1991) and *Change Forces : Probing the Depths of Educational Reform* (1993), these studies emphasise the complexity of satisfactorily achieving educational reform[2]. They also point to the necessity of convincing teachers that proposed changes have a well-rooted educational base and are not proceeding from agendas motivated by concerns which are extraneous to, or only tangentially linked to, the integrity of education and of true teaching and learning[3].

2. A Flawed Competency Approach

One such movement was the competency based movement which was very much in vogue in the United States in the seventies and early eighties. Its supporters considered that the design and application of competency measures would lead to great breakthroughs in the promotion of quality outcomes and in the accurate assessment of the teaching-learning process. Inspired by the accountability in education movement and based on behaviourist approaches to knowledge and learning, it set out to itemise the content, qualities and characteristics on which pupils would be assessed. It developed applied, behaviourally specific descriptions of human performance. It moved towards what has been termed "atomistic task analysis" and tended to think that knowledge could be fragmented, with the sum of its parts comprising the whole[4]. It saw little difficulty in the assessment of competence by means of performance on checklists. Educational goals tended to be defined in terms of explicit behavioural descriptions of what a person should be expected to do once the educational activity had been pursued. As critics of the early competency movement pointed out:

> Though a competency can be inferred from behaviour, the two are not equivalent and there is seldom a one-to-one correspondence between them. ...Therefore, to define competencies as lists of specific, repeated skills, tasks and actions is to confuse outcomes with the processes that enable them to occur[5].

The form of assessment employed to assess competency has a huge bearing on the nature of the competencies identified and specified. In the hey-day of the competency movement in the United States it was observed:

> Most competencies are product-oriented, i.e. they treat specific events as manifestations of ability without concerning themselves with how and when the occurrence of the specific event reflects the underlying generalised capacity to engage in the essential process. To require only a finite product as the proof that competence exists is to risk trivialising the educational attainment[6].

Within the behaviourist-positivist tradition, the tendency of objective testing was specific and factual based and did not encompass the broader view of educational competence. As will be elaborated on later, while aspects of competence can be inferred from behaviour, full competence may not be observed in performance. In particular, techniques of assessment need to be broadly conceived and multi-faceted if they are to have a serious chance of fully evaluating competence.

3. The Process of the Formation of Competence

When focussing on the contemporary debate within Europe, lessons should be borne in mind from the experiences of the earlier competency movement, particularly in the United States. In the context of the renewed emphasis on investment in what is crudely termed "human capital" and "human resource development," there is potentially much of value in seeking to promote qualitative outcomes from the education process which equip individuals to attain the highest level possible in the realisation of their talents and skills for their personal and social good. However, there are also dangers of a superficial approach to promoting competencies which fails to understand their formation process, the circumstances in which they can be promoted and the difficulties in their evaluation. It is a perennial task of educational reform to seek to realise and bring to fruition the goals of the education process for as many participants as possible. As the "Introductory Notes for the symposium" stated:

> Discussing what young people should acquire in terms of competencies presupposes a choice that is not only of terminology; it implies a way of approaching and envisaging an educational project (p. 4).

"Competence" and "competencies" are not unproblematic terms. In this paper, it is proposed that competence be regarded as the general capability based on knowledge, experience, values, dispositions which a person has developed through engagement with educational practices. Competencies arise from this capacity and, to some degree, are reflected in the demonstrated skills or performances which the individual exhibits in practical actions or the resolution of problems. While performance refers to a "doing" of some kind which is discrete and delineated, competence refers essentially to the state of being, or a capacity. As William Doll puts it:

> One who is competent is one who has a certain "fitness, sufficiency or aptitude," or to take the word's Latin derivation, a competent person is one who possesses a certain confluence, "symmetry, conjunction, or meeting together" of powers which allow him/her "to deal adequately with a situation." In short, performance is the outward and public manifestation of underlying and internal powers[7].

Competencies or skills can be of varying character and significance. Some skills can be largely of a routine character and can be acquired through practice and habituation with little, if any, reflection or theory. These would include many of the routine day-to-day skills we perform whose importance for ordinary living frequently only comes to consciousness when one is impeded from doing them by injuries or strokes. There are other skills which require understanding, insight and cultivated awareness. These are the ones most closely linked to educational concerns. Pearson has drawn a working distinction between the two categories of skills, labelling the former "habitual skill knowledge" and the latter, "intelligent skill knowledge." He argues that attempts to reduce intelligent skill knowledge to a set of specific competencies linked to habitual skill knowledge is invalid[8]. As well as the hierarchy within competencies there are also degrees of competency. In so far as competencies as exhibited in performance are reflections of a person's competence in an area or field of action one can have a gradation ranging from the "barely competent" to the "highly competent." A person is judged "incompetent" when they are "out-of-their depth" and are judged to be incapable of coping with the challenges and demands of the issue in question. However, it does not always follow that just because a person's competency or level of performance as exhibited is judged to be very inadequate, that the person is actually incompetent. Issues such as personal motivation or the nature of the appraisal can raise questions about the alleged incompetence.

There can also be a gap between a person's competence, in the sense of capacity, and his/her positioning as to how and when to best demonstrate it. The process through which the competence is cultivated ought to incorporate a practice and an orientation which will facilitate the expression of the competence appropriately through skills and competencies.

Competence is developed through close engagement with particular contexts in a disciplinary manner. Competence does not come into play solely in its application. It is intimately bound up with the process of learning or mastery which the individual undergoes. Furthermore, there is much more to it than the cognitive, intellectual or psychomotor aspects which may apply. The affective dimension is also centrally relevant. If it is a true initiation into the tradition of the curricular area in question, the fostering of an interest in, a love for, a caring about, form part of the dynamic of the relationship between the individual and the subject area in which competence is being cultivated. The achievement of competence is accompanied in its appropriation and in its exercise by the attitudes, beliefs, and personal culture of the person who acquires the competence and exercises the competencies in question.

As well as focussing on the outcomes in terms of competencies, sustained attention needs to be given to the processes through which competence is acquired. An over concern with outcomes not only suggests an instrumentalist approach, but may also imply a short-cut approach, whereby it is thought that worthwhile skills and competencies can be acquired without an immersion and serious engagement with the relevant domains of knowledge and experience. There is a danger of emasculating or trivialising the domains of knowledge, forgetting that the whole is more than the sum of the parts. If competencies are divorced from the moral purposes of teaching and learning, if the cultural, spiritual and regional integrities which belong to those purposes in the different European countries are ignored or overlooked, then the perspective offered would not be a truly educational one.

The liberal education dimension in the development of competence in the "non-habitual" skills area resides in the quality of the individual's engagement in cooperation with his/her tutor and peers within a milieu where relationships are congenial to fruitful interaction and pedagogic conversation. Dunne's view of an initiation into educational practice to promote competence is in a rich vein of Western philosophic tradition:

> Engagement in the characteristic tasks of a practice, which embodies standards that challenge one insofar as they are beyond one, leads, when it goes well, to the development not only of competencies specific to that practice but also of the moral qualities that transcend it – that characterise one not just as a practitioner in that domain, but as a person in life.

Whether it be academic or practical subjects, Dunne states:

> In each case it is an ongoing practice that students need to be introduced to a practice that embodies its own ways of conducting inquiry, asking fruitful questions, imagining or empathising with characters or situations, devising plausible hypotheses or interesting interpretations, sifting and weighing evidence, making creative connections or shifts of perspective, identifying and reflecting on basic assumptions, becoming sensitive to different contexts, making critical judgements[9].

These forms of engagement are embedded in the contexts and within the traditions of the form of knowledge or experience being encountered. It is through these forms of initiation and the establishment of degrees of mastery that competencies and skills have their anchorage.

The inductive and experiential experience involved gives authenticity to the personal achievement which distinguishes it from the superficial regurgitation of received knowledge or attitudes which are sometimes rewarded by the form some public examinations take.

In section 2.3 of the "Introduction Notes for the symposium" it is truly stated:

> To say that one is learning to become skillful in some field or other one day is not really meaningful unless the skill is already present in some degree, even if only in embryo. A skill is developed, enriched, enhanced or consolidated on the basis of an initial level of ability. (p. 5).

The engagement with the "doing" of the special features of domains of knowledge at appropriate levels of complexity, under the guidance of a teacher who has established a good level of competence within that domain, needs to be established as the common pattern for education. The apprenticeship dimension is integral but it should not be an imprinting or moulding process, but rather the opening up of subject area in its richness, experience and tradition by a mediator who has established a degree of mastery within it and has a regard and enthusiasm for its values.

It was such an approach that Bruner advocated when he wrote about the "doing" of a subject, the basic objective of which was to make the subject the pupil's own, to make it part of the pupil's own thinking whether it be physics, history or whatever subject. He wrote:

> What seems to be at work in a good problem-solving "performance" is some underlying competence in using the operations of physics or whatever, and the performance that emerges from this competence may never be the same on any two occasions. What is learned is competence, not particular performances[10].

In the *Concept of Mind,* Gilbert Ryle drew the distinction between "knowing that" and "knowing how." These features are interrelated but they underpin skills or competencies in different ways. All skills require "knowing how," and practice and guided monitoring to help their acquisition. Some skills of a routine, habitual character may require little of "knowing that," but others may require a great deal of reflection, knowing that/theorising and intelligent thinking during the exercise of the competency. As Griffith remarks, "Where reflection and theory are needed to develop a skill they must be built into the learning of it[11]." This does not mean that in the practice of high-level competencies the individual needs to be always conscious of the theoretical underpinning of the action. With experimentation and practice he/she will have made their own of the theoretical framework of reference to which they have been inducted, so that the "knowing that "will have permeated the individual's approach and become something of a habitual possession.

As well as the need for anchoring significant competencies within the domains of knowledge or craft traditions through genuine engagement in the *doing* as part of the process, fluency in and mastery of the competence are fostered through practice and guided, particularly at the early stages, by one who exemplifies the competence. It is by engaging in a large number of appropriate learning experiences, that general competence is promoted. By an accumulation of experiences a kind of synthesising power sets in which leads to competence. Where this occurs through a balanced education, incorporating an initiation into and engagement with the core and dynamic thrust of a range of central subject areas, the individual should have a competence in many areas as a result and be able to demonstrate them to a large degree in the exercise of competencies. It is through such processes that the central goal of "learning

to learn" can be best promoted. The process of establishing the fluency or mastery, should incorporate specific guidance and experience in the transfer of the competence to a variety of contexts and situations.

The development of competence is most often achieved through a sharing with others of the richness, qualities and characteristics of the subject area in question. The social context and the affective dimension have an influence on attitudes to the subject and the competencies associated with it, particularly during the early period of apprenticeship and nurturing. The feature of the cultural heritage being explored and encountered has within it the contributions of many. It is not just a "stock of knowledge" which is being "transmitted" in a passive or inert fashion. Rather, the participant, together with peers and mentor, is actively engaging with the material through a process which is proper to the integrity of the subject, and hopefully contributing in some way to the on-going resource. The learning environment, a school, should be organised in such a way that it is seen to be in harmony with the competence forming activities. The planning, provision and evaluation of subjects should seek to promote the achievement of competence by the students and to provide opportunities for the exercise and practice of appropriate competencies.

The way the curriculum is organised and delivered may undermine the formally declared educational aims of the school. Structure can dominate intentionality. For instance, if the school declares as one of its aims the fostering of competence in relation to democratic living and is run in an authoritarian top-down way, which does not provide pupils with opportunities and occasions for the exercise of appropriate democratic competencies, then, the contradictions can undermine formal sessions of "knowing that" in relation to civic and political education. Furthermore, the general school climate and the "hidden curriculum" of the school can favour or inhibit the cultivation of pupil competence. School links with local communities and network relationships with outside agencies can also broaden the opportunities for the application of competence. Well organised social and work experience can add valuable dimensions to the practice of competencies and underline aspects of the transfer of competencies.

The opportunities for the development of competence and valuable competencies exists, of course, for practical/vocational subjects as well as for traditional academic subjects. Just as, in the past, due to poor pedagogy and assessment practices, the study of academic subjects has not always yielded competencies which were possible, so, in the case of vocational studies there have been instances where the imprinting pattern prevailed. Students were trained in very discrete and specific modes to operate within highly compartmentalised areas of work. Here the competence as exhibited by an employee in the performance of the pre-determined skill could be of a high standard, viewed from the habitual skill perspective, but, which was not educational or emancipatory for the individual and led to little, if any, generalisation or transfer. The radical changes which have taken place in many working environments have led to the obsolescence of narrow skills and demarcated competencies. As the "Introductory Notes" state:

> The abilities which were traditionally a feature of this or that trade are no longer adequate. It is now also necessary to be able to anticipate a difficulty, take decisions, cooperate with others and adapt one's actions. The present uncertainty about the evolution of occupational activities and employment merely reinforces this demand for general competencies. (p. 6)

In this context, it is noteworthy that the European Roundtable of Industrialists recently called for a commitment to general education in the liberal education tradition as the way forward, rather than narrow vocational training[12].

The specific vocational competencies need to be rooted in the broader cognitive, emotional and social development of the personnel involved. The process through which competence is fostered in vocational contexts should share many of the qualities enunciated above for personal engagement of the participant with the subject content. Under various forms of enlightened apprenticeship the "knowing how" may feature more than the "knowing that," but the need for understanding, transferability of skills, ability to adapt and to innovate, are increasingly important for the individual's personal and social living, as well as for his/her employment situation.

4. Strategy for Promoting Competence

How one assesses the existence or quality of competencies has a very intimate bearing on the way the education system operates in nurturing them. In the case of the early competency movement, discussed above, the driving desire for measurement of a standardised character coincided with a flawed view of competence and led to a fragmented, itemisation of skills and so-called objective tests which had deleterious backwash effects on the education process. It has long been established that the assessment procedures employed in education have a huge influence on how teachers teach and on the character of the learning process. A recent OECD study emphasised:

> ... in today's schools assessment has become one of the main influences on how children learn and teachers teach. Its influence is pervasive, often distorting teaching and learning through testing, examining and short-term memorising[13].

A major reform task facing education systems is the devising of assessment procedures which would be sufficiently sophisticated, sensitive and flexible to evaluate competencies which are seen as desirable outcomes of students' engagement with the education system. As was stated earlier, competence may not be fully measurable through performance. Despite this caveat, it is legitimate to assess evidence of competence as revealed in performance. If the predominant concern is to evaluate store of knowledge, powers of retentiveness etc., then traditional terminal examinations can generally be relied on to do the job, more or less reliably and validly. If, however, a broader range of competencies is being sought, then more varied, and more valid techniques are necessary. Even at that, there may be some desirable competencies which do not lend themselves to evaluation through traditional modes of assessment. Qualities such as interest, initiative, commitment may be best assessed indirectly rather than through targeted tests. An over-emphasis on measurement may also result in distorting and seriously delimiting what are stated as desirable competencies in order to fit them into patterns which can be more feasibly measured.

As well as traditional written examinations many educational systems have been employing a variety of assessment techniques such as orals, aurals, practicals, projects, continuous assessment, school-based assessment, observations of group activity etc. However, the employment of a full battery of assessment measures can be very expensive and take up a great deal of professional and administrative time. The "poetry" of desirable competencies should not distract from the concrete context and processes which are the bedrock for their cultivation, nor from the mechanisms which would be needed to find out if, and to what degree, the competencies had been appropriated by pupils.

Recent policy statements by Ministers of Education in the EU and in the OECD have emphasised a concern for the identification of "key skills" and competencies and for "more sophisticated and transparent approaches for assessing and recognising competence[14]." These declarations of political intent may bode well for the type of investment which will be required to make the desired progress in these areas. The statements also highlight the need for the application of a lot of thought as to how this widespread contemporary concern for key competencies may be best handled.

Once competencies are not uprooted from the definite contexts in which they are nurtured and seen as a package which somehow can be directly focussed on and produced outside of such contexts, then there can be value in identifying overarching competencies which should be aspired to. They can serve as overall goals. The perennial question is how can they be really fostered? The gap between the general statements and where individuals start out from may leave a great deal of uncharted territory. What would be important is that statements of competencies do not come to be seen as admirable characteristics but of little practical import. They begin to be more effective when they are kept steadily in view and are drawn upon to inspire and influence statements of objectives in particular subject areas and statements of performance standards in assessment. This gives a more intimate and linked relationship with the contexts in which they can be practised.

In the course of the curriculum reform work undertaken over recent years by many countries, there is evidence of worthwhile efforts in the designation of worthwhile objectives for many subjects and a clearer articulation of the competencies which engagement with the subjects should promote amongst pupils. The approach being taken is much richer than the older competency movement. In the context of serving a very heterogeneous pupil population, new pathways and courses alternatives to the traditional academic grammar school are being implemented for the 15-18/19 age groups. The diversity of course options, the more applied emphases in many of them and the greater linkage to the out-of-school environment, open up valuable opportunities for varied talents and aptitudes to be fostered.

In most subjects efforts are being made to shift from a teacher-centred, didactic pedagogic approach to more active learning methods. These facilitate the pupil's personal engagement in the "doing" of the subject and allow opportunities for the practice of relevant skills and competencies within a learning environment which seeks to be supportive. By the accumulation of much guided experience over a range of subject areas, in harmony with pupils' interests and abilities, the desired generic skills can be cultivated and these can be transferable. The general life of the school can also provide many opportunities in the way it is organised and in the range and quality of its non-classroom activities. Debates, sports, cultural events, outward bound programmes, social activities, school-to-work programmes – all provide opportunities for the building of competence and confidence, resulting in many significant competencies. As was noted, the modes of assessment of pupils' competence have a very significant bearing on its promotion. New approaches to curricular content, improved and varied styles of teaching need to be matched by the appropriate assessment procedures. A closer matching between the competencies to be developed and the techniques of assessment to be employed as well as the investment of time, effort and expertise in the actual assessing of competence – all pose continuing challenges to educational systems.

The concern about *outcomes* of the education system, such as the more widespread achievement of key competencies, as identified in the Introductory Notes to the symposium, is valid. However, the best possibility of achieving them may be through a more realistic

expectation of what schools should seek to accomplish for their pupils and more emphasis on the processes by which these purposes may be achieved. While it may not be glamourous, a credible strategy for the way forward may be a serious, widely located commitment to informed, sustained and targeted support for the efforts being made by schools to bring about the many reforms underway. As was discussed in the opening section of this paper, schools are facing many challenges, even when operating in relatively favourable circumstances. Many schools face very daunting social, economic and cultural circumstances wherein the poetry of competencies seems far removed from day-to-day custodial and socialisation grinds. It is vital for policy makers and reformers to keep in close contact with the realities of school circumstance, to learn from the implementation experience of on-going reforms, and to attend to the capacity of school personnel in a patient and sustained way towards the development of desired competence among the greatest possible number of pupils. This is not the occasion to spell out the measures required, but Husen's warning is still relevant and should be borne in mind:

> The gap between goal rhetoric, what the school is supposed to achieve, and the resources and conditions conducive of attaining these goals has tended to widen[15].

There may be much to be gained at this time from a consolidating approach whereby international bodies could harvest what is valuable from the extensive research, development and reflection which have taken place with regard to the secondary school in modern society. It is within such an in-depth appraisal that the current widely shared concern for competencies many find its most productive outcome.

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Appendix II

Individual competencies and the demands of society

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1. Introduction

During the past few years *competence* has become a very frequently used word in educational literature. The reason for this is, I think, in the fact that the meaning of the world competence emphasises *real capacity to apply knowledge*. A person is competent if he or she *has the knowledge* and, at the same time, is *capable to use* it. Knowledge, form in respect, is less than competence.

It is not surprising that the world competence was emphasised first in curriculum theory. Curriculum specialists have always stressed that we have to make a difference between learning and knowledge, on the one hand, and knowledge and competence, on the other. Learning makes sense only if it produces knowledge, and knowledge makes sense only if it produces competence. The ultimate goal of education is the development of competencies in the individual. Education is successful if it produces people who are competent, that is they can *take responsibility for action in a given field.*

It is even less surprising that politicians particularly welcome this approach to curriculum theory. Society maintains schools not for making pupils simply learn but for making them know. And society wants pupils to know not only because knowledge is valuable in itself but because it enables us to act, to produce values, to create products, to solve problems. Society needs not simply educated people but competent people. Politicians who are more and more worryied about how efficiently schools work are especially interested in the concept of competence.

Teachers, educationalists and politicians working on the realisation of the European idea are right to raise the question: what competencies European society needs. What competencies schools have to develop in our pupils if we want them to become members of a European society. And, the question which is perhaps the most delicate one: how these competencies can be developed.

2. European needs

The question this symposium has to answer or, to be more modest, has to reflect on is: whether we can define particular competencies needed by the future European society.

When the aims of the project "A secondary education for Europe" were set, one of the key questions was how far we can speak about *European society*. The term "European society" is, I think, a metaphor. It is probable that, in the foreseeable future, we shall not have a European society in the same sense as we have French, German or American societies. Europe is a federation of countries which will keep their sovereignty, their cultural identity and their particular national goals.

On the other hand, it is clear that even the already existing similarity of European societies allows the common definition of needs. The common definition of needs becomes unavoidable with the increasing number of issues dealt with at European level.

Many issues could be mentioned here. Environment protection, for instance, can no longer be dealt with at a national level and, at the same time, it needs education policy answers. The human or minority rights issue is a similar one. It is a common interest of all European nations that these rights are respected in each country, and this also requires actions in education policy. For those European countries which open their labour market to others a certain level of co-ordination of their vocational-technical training policies becomes indispensable and this naturally has repercussions on general education policy. If European higher educational systems become more and more interrelated and an increasing number of students spend part of their time studying in another country, higher education entry and leaving requirements will have to be harmonised. This also has direct impact on school education.

We all know that Europe is necessarily multilingual and multicultural. Our common cultural heritage and common responsibilities cannot hide the fact that we have come from nations with significant cultural differences. Europe is created by states and nations with strong and different cultural traditions. As members of the community of the European nations they have to develop a new culture of co-operation which is without has no precedent. They have to do much more than what they have traditionally done in international contacts. Traditionally, international co-operation could be concentrated on activities such as, the elaboration of general agreements or the solution of acute problems, and only a restricted circle has been involved in them. Now, an increasing number of people with very different cultural backgrounds have to work together intensively and efficiently on common projects on a daily basis.

3. Social and economic challenges in Europe

It is a commonplace that the social and economic context of education is rapidly changing and that the pace of this change is faster than ever in history. The rapidity of the changes makes it extremely difficult to identify the future demands of European societies and economies of the next decades. There are, however, a number of values shared by all European nations and there are some well-identified challenges which have direct implications on what competencies education should develop in our pupils.

3.1 Preserving open societies

Europe is the community of open, democratic societies. This leads to two major challenges that have serious educational implications. On the one hand, the preservation and the protection of an open society requires permanent efforts. It also requires individuals who are willing and who are able to make these efforts. On the other hand, to live in an open society puts serious burdens and responsibilities on the individual. School education has to play a major role in developing those individual competencies that enable us to bear these burdens and these responsibilities.

European societies are open also in the sense that they are permanently exposed to cultural influences coming form other societies. No European nation can prevent the penetration of intellectual, cultural or linguistic influences of other nations. The number of contacts with other cultures, directly or through the different channels of telecommunication is already extremely high and will further increase. Every culture has to have the capacity to absorb the foreign

influences without being threatened by disintegration or loss of identity. This capacity is partly a social one, but it depends mainly on capacities possessed by individuals. Individuals living in Europe have to possess the competencies that are needed for life in a milieu of cultural diversity. These competencies are partly of a psychological nature: only persons *with correct self-perception* and *confidence* are able to appreciate cultural diversity.

3.2 The challenges of multilingualism and multiculturalism

Probably we do not exaggerate if we say that the biggest challenge of European development is connected with ultilingualism and multiculturalism. We all know that language is the most important "carrier" of culture. Some kind of simple common culture can probably be created even without spoken language but the common spoken language is a fundamental condition of our cultural richness.

In European communication we use mainly English or French. Most of us have learnt these languages in school, and the language skills of many of us put serious limitations on our communication. The number of misunderstandings and misinterpretations is inevitably much higher in our foreign language communication than when we communicate in our native language. When we are communicating in a foreign language we express ourselves, in general, in a reduced way in order to help understanding. We need more feedback, more repetition, more clarification. But, nevertheless, communication has to have the same level of efficiency, that is it has to produce the same results: precisely formulated agreements or contracts, clear texts of regulations, accurate instructions for users, etc. These have to have the same quality as if they had been produced by communication in the native language.

In the emerging European networks and organisations people coming from different cultures and speaking different languages have to *analyse problems, elaborate practical solutions, evaluate results of actions* and *formulate plans for execution.* They face *conflicts that have to be solved together* and they face *situations of emergency when rapid action is needed.* If we want European organisations to work in an efficient and reliable way people working in them will have to master special skills. A new type of competency will have to be defined. I would call it: *efficient co-operative work in a multilingual context.*

A number of questions arise here. How extended is the circle in which the need for this new competence really appears. Is it only the very limited number of people who are actively involved in international projects or is it much more extended? How far are our schools prepared to develop this new competence? How will teachers, who themselves have rarely had experience in co-operative work in a multilingual context, be able to do this job? How far are our schools equipped with appropriate pedagogical instruments for developing this competence?

3.3 Economic challenges

An attempt to identify the possible directions of economic and labour market development and their implications for education policy was recently made at the meeting of the OECD Education Committee at ministerial level last January. The preparatory documents of the meeting, the discussion and the conclusions have been strongly influenced by the results of a study OECD has recently completed on labour market changes (the so called *Job Study*).

A major conclusion was that given the rapidity of economic changes and, as a consequence, those of the labour market the traditional forms of education can no longer meet social and economic demands. No one can spend their whole life doing the same work: technological changes and economic restructuring due to global capital movements cause frequent alterations of work conditions.

Due to the rapid changes in the economy and labour markets shorter or longer periods of unemployment may occur in the life of everybody. Our capacity of getting out of this situation may determine our life chances. Not only must every child learn that periods of unemployment are a normal feature of life, but they also have to possess the skills that are needed for finding a new job.

The development of information technology has a tremendous impact on our everyday life. We live in an era where without a basic knowledge of information technologies we cannot solve our everyday problems, like drawing money from a bank, paying taxes, obtaining social security benefits or expressing our political wishes. This has, of course, far-reaching consequences on education: the basic elements of information technology have to be learnt by everybody, even for those who leave schools relatively early and those who never think of higher studies. We have to take seriously the word *computer literacy*. The lack of basic competence in computers will have the same impact on the life of the individual as illiteracy had at the beginning of this century: marginalisation and impoverishment.

The dramatic increase in the quantity of information that reaches us everyday can paralyse us if we are not able to select and to structure it. Anybody who has thirty TV channels in his home – which has already become a reality even in the less developed countries – or who has access to computer networks and databases all over the world finds himself in they are not able to separate the valuable information from that without any value. The huge mass of information that reaches us everyday contains both value and rubbish, both true messages and misinforming lies. The competence of selecting and evaluating information has and will have a determining impact on the life of individuals. This again has serious implications on school policy.

The typical prediction of the 1970s that states the time we spend in work will decrease for the benefit of leisure time seems to be denied by the development of the 1980s and 1990s. Data from the above-mentioned OECD documents indicate that in many countries people – at least those who have a job – work more that one decade ago. The increase of leisure time is a challenge mainly for those who are unemployed. However, since this is something that may happen to anybody, a preparation for using leisure time is an important task for our schools. Again this requires again the development of special individual competencies.

3.4 People, labour market and workplaces

Labour studies demonstrate that the composition and nature of workplaces is rapidly changing. The number of places where people have to work in an autonomous way, without permanent and direct external control is increasing. Less and less people work in companies organised according to the traditional Taylorian model where mechanical operations dictated by machines or strict work procedures were typical. An increasing number of people work with consumers or other types of clients.

Autonomy at the work place requires special competencies. A person working in such a workplace has to *identify problems*, to *elaborate creative solutions* to these problems, to be able to *manage his/her time* and, in general, to have *a stronger feeling of responsibility.* Working with clients or consumers also requires special skills, like *empathy, understanding, politeness, communication skills, individualised application of general rules*, etc.

Workplaces are also dramatically transformed by information technology. In an increasing number of companies computer knowledge is required even in relatively simple jobs. The lack of competence in this field, as mentioned earlier, is more and more likely to put people on the margin of the labour market.

Technological development can transform the whole nature of work. In my country, Hungary, which is in the less developed part of Europe, a few years ago telephones were a scarce commodity and computers were also rare. Today many people have home computers with a modem connecting them to others. We can see people using mobile telephones everywhere.

Teleworking, that is working at home and exchanging information with the workplace through computers linked with telephone lines is expected to develop very fast in the near future. According to OECD forecasts between 1994 and 2000 the number of teleworkers will increase from 0.6 millions to 12 million in Europe and North America.

3.5 People, organisations and our life

Our societies are composed of complex organisations: companies, offices, hospitals, schools and many other types of institutions. Every day, in these organisations millions of decisions are taken by millions of human beings. The quality of our life, our economic well being and our cultural development depend on the *quality of these decisions.*

Decisions are taken by individuals, groups or communities. And the quality of the decisions depends necessarily on their competencies. It depends on how far they are able to *analyse and understand complex situations.* It depends on how far they are able to *elaborate appropriate answers* to the problems they face. It depends on how far they are able to *communicate their answers to others* and how far they are able to *persuade others* on the correctness of their answers.

It is our vital interest that the quality of the decisions taken by people working in the thousands of organisations surrounding us are of good quality. We can influence this by developing their individual capacities and competencies.

3.6 Educational implications of economic changes

The documents of the above-mentioned OECD Educational Committee meeting give us a rich selection of those intellectual and behavioural competencies that will be needed by people who want to be employable in European and North American economies in the next decades. A particular emphasis is put on competencies required by the modern economy taht are influenced by *information technology.*

The most frequently quoted competencies are *mathematical-analytical skills, scientific ways of understanding and applying technological knowledge* including information and communication science, *the understanding of civics, economic science and arts, health and environment awareness, and moral reasoning and action.* Since the future development of economies depends very much on their capacity of adaptation the most frequently mentioned competencies are connected with the capacity of the individual to renew his or her knowledge, that is the *capacity of life-long learning.* The capacity for life-long learning depends on competencies like the *possession of appropriate learning techniques,* the *capability to organise information* and the *ability to work independently.*

Since life-long learning occurs in most cases in groups, *social and co-operative skills* are also extremely important. Learning as an adult member of a group requires *critical self-awareness, capacity to co-operate, capacity for self-expression,* the *democratic exercise of rights and duties* and the *tolerance of other's opinion.*

All the competencies that have been listed are of a cross-curricular nature. They cannot be developed in traditional classroom activities concentrating on subject teaching. This leads us further to the question of how to achieve the goals. I shall come back to this at the end of this paper.

4. Modern and conventional competencies

All that was said about the competencies needed by modern European societies and economies raises a vital question: how general and how urgent is the development of them?

I think that we have to accept that social and economic development is and remains unbalanced. The rapid development and transformation characterising the leading sectors of the economy do not influence equally all sectors and all social groups. There are and there will be sectors that are less exposed to the changes. We have to think of these sectors of society as well. Although our schools have to concentrate their efforts on the development of capacities needed by modern European societies and economies, conventional or traditional capacities should not be neglected.

In a period of rapid social and economic change we cannot forget the need for the preservation of *social cohesion* and *stability.* This requires the acquisition of the traditional values of *equity, solidarity* and *compassion with the socially disadvantaged.* It requires the development of conventional competencies like *the ability to distinguish between the just and the unjust,* the *capability for moral judgement,* and the *understanding of others' difficulties.*

5. Social aspects

When we talk about new competencies needed by European societies we usually think in general terms without making distinctions between people or groups who have different positions in society. We cannot avoid, however, reflecting on the real relevance of the different new competencies for the different social groups.

I think we should make a distinction between at least three types of competencies. Firstly we can speak about *general basic competencies* that have to be developed in every individual living in European societies. These are the competencies without which any person would find him or herself on the margin of the modern society. We can mention basic numeracy, literacy and co-operation skills but in fact, the basic competencies are broader and more numerous

than these in our days. As mentioned, even the basic daily functions of life require complex capacities. In our societies where everybody uses plastic cards for paying, where everybody has to use complicated computerised systems for buying simple train tickets and where everybody has to understand complex messages in different daily situations even the most fundamental capacities are highly complex. The capacity to learn can be mentioned here again as a basic competence, needed by everybody.

Secondly, I think, we should distinguish *advanced or higher level general competencies.* These competencies, by nature, cannot be developed in every individual but they have to be mastered by everybody having broader responsibilities with longer term implications. Those who take decisions with lasting impacts on others' life, those who are responsible for the efficient and correct use of public goods, those who communicate with larger communities or entire societies and those who produce and operate technologies that have an impact on many people need special competencies. These competencies are necessarily more complex and of a higher level than those that are needed by people responsible only for their own life.

Finally, I would distinguish those *special vocational competencies* that are needed by people practising given vocations. There is, perhaps, one element that should receive a particular emphasis here. The special competencies needed by different vocations may be very different. There are, nevertheless, many common elements that have to be developed in everybody independently of the special vocational field he or she enters. These are related partly to behavioural capacities like, for instance, manual skills, communication skills, reliability, accuracy or predictability, and partly to cognitive capacities like logical thinking, linguistic coherence or analytical skills. Most of these competencies, although they have direct vocational implications, can be the best developed in the framework of general education.

6. Achieving the goals

After setting the *goals* our reflection must be directed to the *instruments* which make it possible to achieve the goals. The definition of the competencies should be followed by the definition of the tools to be used for their development in our pupils. This reflection should lead to concrete proposals and recommendations for education policy.

The modernisation of curricula, textbooks and teaching programmes is naturally the main instrument education policy can resort to. It is obvious that in the process of developing the relevant competencies *teachers are the key actors.* The greatest difficulty is that many teachers do not themselves possess the competencies they are supposed to develop in their pupils. The role of initial and in-service teacher training is logically often stressed in this respect.

Although schools have to play a determinant role in developing the relevant competencies, they cannot achieve the goal alone. It is not surprising therefore that the role of *other partners* like civil organisations, representatives of industry or the media is also often emphasised. Competencies needed by modern European societies should be continuously expressed by these partners and communicated by them towards teachers and schools.

Finally, after defining the goals and choosing the appropriate instruments there is a need of evaluating the process and the results. We can hope that schools will devote sufficient attention and efforts to the development of the new competencies only if their assessment becomes part of the general system of educational evaluation.

Appendix III

Introductory notes
by Jean-François PERRET

Outline

This introductory text is arranged in four parts. The first relates the topic of the symposium to the question of curricula, which are increasingly expected to reflect the essential knowledge and competencies that young people should acquire between the ages of 15 and 20 years.

The second part offers some guide marks concerning the concepts of competencies and key competencies, as well as their educational significance.

To enable the discussion to be based on actual examples, the third part puts forward a list of key competencies from which it will be possible to check whether we all have the same abilities in mind when talking about key competencies. It is precisely for that reason that the list is being submitted to the symposium's participants in advance for their personal assessment (see the appended questionnaire).

Finally, the fourth part looks at the circumstances in which key competencies emerge by considering the following fundamental questions: when, where and how do such competencies develop?

1. Re-examination of curricula

In recent years, the content and structure of curricula for young people between 15 and 20 years of age have had to be reconsidered. There are numerous reasons for this, which are linked to a variety of developments concerning the factual knowledge to be transmitted, the competencies expected, communication and learning media, approachs to teaching, target groups, post-secondary training courses and occupational activities. Here, we shall refrain from going over again the new contexts and challenges facing secondary education, as rapporteurs at the previous symposia have already done so.

We shall concentrate more particularly on a fundamental question exercising various circles affected by the functioning of education systems. These include, of course, teaching and educational research circles, but also cultural, economic and political circles.

The question can be summarised as follows: Are young Europeans assimilating between the ages of 15 and 20 the factual knowledge and know-how they need both now and in the future in order to cope with the changes our societies are undergoing? Are they acquiring the tools of understanding and action that will enable them to grasp the new cultural, social, economic and political realities now emerging as well as find their bearings in changing contexts of learning and work?

An initial reaction to this question is to consider the content of curricula in order to verify its relevance to present-day reality. Do such curricula, as educational projects, adequately express what society expects? Do they reflect society's objectives, ambitions and the current educational challenges sufficiently clearly? If the answer is in the negative - that is, if a curriculum no longer seems to meet expectations adequately - how can the curriculum be revised? What adjustments can be made to it?

We shall single out below four themes which typify recent work on curricula reform. These aspects are, of course, not mutually exclusive, but interdependent.

1.1. Filling gaps

An initial task is to identify gaps in curricula, which usually become apparent gradually but sometimes more suddenly as a result of a shift in circumstances. The next step is to supplement the curricula with new items of knowledge now regarded as indispensable.

Thus, in the field of science the introduction of knowledge connected particularly with information technology, the study of the environment and the advance and impact of technologies is now considered necessary during secondary education.

Gaps have also been identified in the field of human and social sciences: how significant is it that a young person may receive no initiation in economics, law, sociology, psychology, etc?

In such subjects as history and geography, which are traditionally better established, the need arises from time to time to re-examine the most appropriate choice of contents, periods and teaching methods. Matters that schools had been in the habit of ignoring may suddenly become important as a result of historical events or societal developments and need to be rapidly incorporated in the curriculum.

The introduction of the so-called "European dimension" in secondary education may be seen as another case of gap-filling. This addition was borne of a realisation that, at a historically decisive time in the building of Europe, young people might never have thought about the topic or even discussed it in class from any angle whatever.

1.2. Reconsidering the structure of curricula

The various steps taken to supplement curricula soon raise the question of the overall structure of curricula. A process of simple accretion quickly runs into the difficulty of arranging the different elements into a coherent whole.

Various schemes propose tackling this question by restructuring fields of learning into areas of knowledge. The basic idea is that the different subjects should be set within a coherent overall plan, so as to avoid mere juxtaposition.

A second method involves working out a new design for curricula with the specific aim of linking together learning objectives of different kinds, some relating to subject knowledge, others to interdisciplinary approaches or general, cross-disciplinary competencies. This quest for new linkages raises fundamental questions concerning the epistemology of academic knowledge as well as questions of form connected to the fact that the written formulation of a school curriculum cannot easily be expressed in a linear fashion. It should be possible, in our view, to read a curriculum text from different angles, in other words, from different "starting points" (content, objectives, competencies, learning processes, etc.), which would probably mean adopting a hypertext type of structure.

1.3. Identifying the essentials

Additions to curricula do not only upset their overall structure, as just mentioned; they also highlight the urgent need to make choices and establish priorities. This means giving some shape to the wide range of often fragmented educational activities that pupils are provided with hour by hour and day by day. Hence there is a second type of curriculum research involving the identification of essential attainments. What are the most important types of basic knowledge among all those that schools seek to transmit to pupils? What are those that everyone should be able to acquire? Is what used to be seen as forming a valid stock of knowledge still relevant? Over the last fifteen years, such questions have in one way or another influenced discussions and studies on redefining both the aims of education and the content of curricula.

Various concepts have thus been put forward to designate the kernel of education: core curriculum, core competencies, bedrock of competencies, basic competencies, fundamental ways of thinking, key competencies, key qualifications, etc. These terms are not, of course, identical; each one reflects a different point of view, a different problem area, a different approach to the central or common part of a curriculum.

The identification of basic attainments is a fundamental task in relation to the aims of the project entitled "A secondary education for Europe". The very list of these aims encapsulates the main elements of secondary education:

"– *[to] give young people the knowledge, competencies and attitudes that they will need in order to meet the major challenges of European society;*

– *[to] prepare young people for higher education, and for mobility, work and daily life in a multilingual and multicultural Europe;*

– *[to] make young people aware of their common cultural heritage and their shared responsibilities as Europeans.*"

It should be recalled here that at the symposium held in Porsgrunn in 1993 on the theme "Contents and methods in secondary education", a discussion was held on the need to define essential contents, both within each subject and from a cross-disciplinary point of view, as indicated by the general report:

"*If the new beneficiaries of secondary education are to be given a chance to succeed, it is important that the knowledge they are expected to acquire (the core curricula) be accurately defined, together with the continuity to be established in their learning. There is work here, in each branch of knowledge, for didacticians: the very notion of "core" needs further investigation, for there is still disagreement over its exact meaning" (p. 8).*

In order to circumscribe the "core" of curricula and consider in greater depth the basic minimum that young people should be able to acquire during their secondary schooling, whatever their educational path may be, the concept of "key competencies" seemed particularly relevant. It was therefore selected as the theme of the Berne symposium. Let us now examine the meaning of the concept more fully.

2. The concept of competencies

Discussing what young people should acquire in terms of competencies presupposes a choice that is not only one of terminology: it implies a way of approaching and envisaging an educational project. Our aim here is to give some pointers to the meaning of the concept. This is no easy task, as we are faced with a semantic diversity due to the fact that the concept of competencies belongs both to everyday language and to the scientific terminology of several branches of research. It cannot be therefore confined to one definition but must be approahced from several different angles in turn.

2.1 Competencies and action situations

Posessing a skill means being able in a given situation to apply the knowledge and experience one has acquired. A reference to competencies thus directs attention towards the practical situations in which they are deployed. There is no point in speaking of competencies unless the can actually be used in a situation; a skill that is not exercised but remains potential is not a skill but, at best, a latent ability.

This fundamentally contextual character of competencies is an important aspect to be stressed. A skill cannot be isolated from the setting in which it is applied. It closely involves the mobilisation of factual knowledge, know-how and attitudes alike, all of which are adjusted to suit a given action situation. It is this all-embracing, comprehensive nature that makes it difficult to define a skill but which also gives it, in consequence, a special force of attraction.

2.2 Competencies and the acquisition of knowledge

As we have just seen, competencies cannot be reduced to either factual knowledge or to know-how. It is not uncommon to come across people who have extensive knowledge but do not necessarily know how to make relevant use of it at the right time, when the situation arises. Posessing a skill is not the same as being knowledgeable or cultured.

This brings us to the complex relationship between knowledge and action in human activity. The whole history of education could undoubtedly be re-read in the light of this question and the answers that have so far been given to it. Ensuring that the acquisition of formal knowledge does not override the development of real competencies is one of the dominant concerns running through all past and present discussions on active learning. Thec current interest in so-called *"sandwich"* courses and in knowledge gained from on-the-job experience is bound up with this concern.

While it is not a foregone conclusion that theoretical knowledge will actually be applied, it is also commonly recognised, a contrario, that knowledge is not irrelevant to a skill! This leads on to the question of what kind of knowledge can, after all, be instrumental to what are considered key competencies.

In order to arrive at some answers, we should consider the "common cultural heritage" of which the Council of Europe wishes to promote awareness among young people, a heritage that is of fundamental importance in many respects since "culture gives shape to the mind", in the words of Jérome Brunner.

In a field such as European history, for example, what is the minimum that all young people should know by the age of 18? What elements of social and political history, as well as of the history of art, music, literature, ideas, science and technology, can help to provide an understanding of present-day situations and realities? What knowledge of the social and human sciences can underpin an ability to act, learn, communicate and manage conflict or any other social skill? Such questions enhance the status of knowledge, without, however, eliminating the risk of its remaining purely adademic. Teachers must, nonetheless, run that risk, if only in order to avoid the even greater danger of allowing large areas of ignorance, even of obscurantism, to persist.

The challenge for teachers, as Philippe Meirieu put it, is in fact to co-ordinate two contradictory principles: the principle of "didactisation" and that of "utilitarianisation", in other words, "a principle taht ensures the systematic acquisition of knowledge but is liable to 'rob it of meaning', and a principle which ensures the integration of knowledge but is liable to cause serious omissions and thereby considerably impoverish pupils' attainments".

2.3 Competencies and educational goals

For the sake of convenience, competencies are usually designated by succinct expressions such as "ability to gather relevant information", "ability to work in a team", "ability to devise new solutions". Such expressions operate rather like key words. But their brevity fails to indicate the contexts in which they are applied, which are, nevertheless, essential to the very definition of competencies, as seen in point 1.1. These concise formulations are thus akin to statements of educational goals, a fact that gives rise to a certain amount of ambiguity. Some clarification is therefore desirable.

Educational goals and objectives pertain by virtue of their nature to an aspiration or project. They thus designate what ought to emerge in the future. The entire emphasis is placed on what will result from educational efforts. This is especially reflected in the systematic use of the future tense of verbs, in verbal forms to which objective-based education has accustomed us: "at the end of their course, pupils **will be** able to...". But the relationship with the future can also be expressed more bluntly, as when pupils are told, "Learn this; you'll see, one day it'll come in useful".

The language of competencies counsels the adoption of a different point of view. To say that one is learning to become skilful in some field or other one day is not really meaningful unless the skill concerned is already present in some degree, even if only in embryo. A skill is developed, enriched, enhanced or consolidated on the basis of an initial level of ability. I cannot say that I am learning to work in a team unless I am already working in a team in some way or another; I cannot learn to become an expert player of a musical instrument unless I already play it a little. This ties in with a common experience expressed in everyday parlance by the saying "One learns by doing".

From this point of view, there is a close relationship between present education and future activity. The fact that a skill is by definition embedded in a practical context necessitates the adoption of two simultaneous points of view: one focusing on the **contexts of future activities**, the other on the **present school contexts** in which young people may or may not already be able to exercise the competencies it is wished to inculcate.

2.4 Competencies and performance

In the wake of Noam Chomsky, linguists use the concept of skill in a very precise way to reflect the infinite variety of utterances an individual can form from a limited number of language components. Mere repetition of sentences is an exception; innovation within a given grammatical framework is what characterises ordinary everyday utterances, suited to each new situation. It is to this inventiveness the the concept of a speaker's linguistic ability refers. In this theoretical context, any utterance is a product of that ability and thus becomes a "performance".

This theoretical approach has often been used as a reference in educational science; it has inspired various studies, especially in the field of knowlege evaluation. But the use of the dyad "skill / performance" outside the context of psycholinguistics is not always clear; indeed, it may sometimes give rise to confusion. In that model, only performance is observable. The concept of skill thus refers to an inferred psychological reality, of the same order as the cognitive structures that are supposed to underlie intellectual processes. From this point of view, the competencies approach no longer corresponds exactly to the definition given earlier according to which a skill is primarily an observable reality, although partly also inferred. From linguistics we can, nonetheless, borrow the approach that treats a skill as the foundation of an inexhaustible creativity of which everyone is capable.

2.5 Competencies and qualifications

Discussion of competencies and qualifications in tandem brings us to another field of reference, that of vocational training and the world of work. The emergence of the concept of competencies is part of the history of vocational education, which is itself marked by changes in economic activity. It should be determined how the concept of competencies beame established in the world of work and industry, as well as why general problem-solving, inventive and adaptive competencies are today given such prominence alongside the ability to carry out well-defined occupational tasks. The rapid transformation of many occupational tasks, particularly as a result of the introduction of new technologies, calls for new qualifications. The abilities that were traditionally a feature of this or that trade are no longer thought adequate. It is now also necessary to be able to anticipate a difficulty, take decisions, co-operate with others and adapt one's actions. The present uncertainty about the evolution of occupational activities and employment merely reinforces this demand for general competencies. The attention given to personal competencies assessment denotes the new emphasis placed on the human resources on which the life of a firm nowadays depends probably more than ever.

Here again, references to competencies and qualifications arise from a particular context, that of firms preoccupied with their survival. Clearly, the present talk about occupational competencies cannot be ignored by educational circles. However, amid this general enthusiasm for competencies it remains to be determined how much is connected with the internal evolution of educational problems and how much with a transfer of the discussion from one field to another, a transfer that is sometimes so sudden that it seems to be due to dissemination by contagion.

2.6 Key competencies

So far we have been talking simply about competencies. We should also dwell a moment on the concept of **key** competencies. What does it mean if a skill is described as "key"? In a figurative sense, the term key might be taken as a reference to tools that open doors and thus permit the mastery of new situations. From this angle, the more doors a key can open, the better it is. But the use of such imagery, enlightening though it may be up to a point, has certain limitations.

It is probably advisable to keep to a more general definition: a key skill is a decisive skill because it relates to a practical context that is neither too restricted nor too specific but has a certain degree of universality. In an educational project, it is easy to see why priority is given to the development of these "broad-spectrum" competencies, which can be used in a variety of situations and contexts. It may also be noted that it is for similar reasons that vocational training circles refer nowadays to the concept of key competencies so extensively.

3. What competencies shall we talk about?

The aim of the symposium is not to produce a list of key competencies, but to explore the meaning of the expression "key competencies for Europe". In order to do so, I nonetheless think it necessary to devote some time to clarify the content of the key competencies with which we are concerned.

It is important to ascertain whether there is already any common yardstick in the matter among the symposium's participants. For that reason I append a short questionnaire aimed at determining which competencies each participant personally considers to be *key* competencies.

For greater clarity, I have made a distinction between two different levels of key skill in the questionnaire. The first concerns the education and future of an entire age-group; it might be called "key competencies for all young Europeans". The second relates, in a narrower sense, to the identification of "key competencies for the building of Europe".

3.1 A list for consideration

The questionnaire contains a list of competencies drawn up on the basis of elements taken from various documents. The list is as follows:

Learning:

- being able to turn an experience to account;
- linking together and organising one's various pieces of knowledge;
- organising one's own learning process;
- being able to solve problems;
- shouldering responsibiity for one's own education.

Searching:

- consulting different sources of data;
- consulting people around one;
- consulting an expert;
- obtaining information;
- being able to manage and file documents.

Thinking:

- seeing the relationship between past and present events;
- viewing this or that aspect of the development of our societies in a critical manner;
- being able to cope with uncertainty and complexity;
- positioning oneself in a debate and working out one's own opinion;
- perceiving the importance of the political and economic contexts of educational and occupational situations;
- evaluating social customs associated with health, consumption and the environment;
- being able to appreciate a work of art or literature.

Communicating:

- understanding and speaking several languages;
- being able to read and write several languages;
- being able to speak in public;
- being able to defend and argue a point of view;
- being able to listen to and take account of other people's views;
- being able to express oneself in writing;
- being able to read graphs, charts and data tables.

Co-operating:

- being able to co-operate and work in a team;
- taking decisions;
- managing differences of opinion and conflicts;
- being able to negotiate;
- being able to establish and maintain contacts.

Getting things done:

- embarking on a project;
- taking responsibilities;
- becoming integrated into a group or community and contributing to it;
- demonstrating solidarity;
- being able to organise one's own work;
- mastering mathematical and modelling tools.

Adapting oneself:

- being able to use new information and communication technologies;
- demonstrating flexibility vis-à-vis rapid change;
- showing tenacity in the face of difficulties;
- being able to devise new solutions.

3.2 Limits of the exercise

This list of key competencies is not intended to be either exhaustive or definitive. It is put forward as a working document with the aim of measuring the degree of agreement and disagreement in our perceptions of the key competencies that young people should be able to develop first and foremost.

The brevity with which the list is formulated may make it difficult to relate each of the sections to realities. There is thus a danger of going no further than a statement of the general objectives or even ultimate goals of education. However, this does have some advantages, particularly when it comes to achieving a consensus. Who, after all, would object to a school trying to develop ability "to obtain information", "to cope with uncertainty" or "to devise new solutions"?

On the other hand, when we go beyond the level of general educational aims and look at the actual everyday circumstances in which pupils may use such competencies, differing points of view, due to the adoption of different learning strategies, are liable to appear.

4. Development of key competencies: outstanding questions

A discussion of the nature of the key competencies expected from young people would be incomplete if it merely enumerated them without addressing the question of the conditions and processes underlying their development. Everyone would probably agree that a skill such as "being able to use information resources in order to turn them into real learning opportunities" is a key skill. But after agreement has been reached on the principle, there remains still the question of how such a skill should be developed: a variety of learning options and strategies can be envisaged and advocated. Hence the value of closely linking the identification of key competencies with an examination of the contexts in which they arise. When, where and how is a key skill acquired? The final part of this document will be devoted more particularly to this type of question.

4.1 Where are key competencies acquired?

This question relates to the places and contexts in which young people develop key competencies. Schools and firms, it should be remembered, are not the only places where learning takes place. Families and various voluntary associations (sports clubs, youth movements, young people's parliaments, computer clubs, music groups, etc.), usually described as centres of socialisation, play an essential part in the exercise of key competencies, not only social but also intellectual.

What, then, is acquired in school and outside school? There seems to be no clear answer at present. There are opposing viewpoints in the discussion, reflecting a choice between fundamentally different positions. One view holds that schools should be refocused on the task they were designed for, namely the transmission of factual knowledge and know-how. The

other view emphasises the socialisation and educational functions that schools are also called on to perform, in partnership with (sometimes in lieu of) the other institutions concerned with the development of general competencies.

For each of the key competencies selected, the following question can be asked: Where is it acquired in practice, and where could it and should it be developed? We shall undoubtedly find that the answers vary according to the educational traditions of each region and country, and probably also – and this will merit particular attention – according to the type of key competencies under consideration.

4.2 Expected and unforeseen competencies

A study of what young people acquire in secondary schools cannot be restricted to an examination of the aims set out in curricula. It is also necessary to look at what young people acquire in practice even though it is not explicitly intended. In other words, we should take into account the real curriculum (including its hidden or implicit elements) as well as the theoretical curriculum. In any educational establishment, pupils will acquire certain unintended competencies, partly unknown to the institution itself, and these competencies will, nonetheless, play a fundamental role.

A striking example concerns competencies used by pupils in coping with tests. Almost every day, young people find themselves in the particular situation of having to show not so much what they are able to do as what they have learnt. Hence they merely need to learn whatever is required, without misinterpreting the teachers's expectations, and then to succeed in demonstrating what they know, if possible giving the impression that they know rather more and in any event avoiding being underestimated; in short, they simply need to pass muster. For pupils, this is a decisive skill, but no curriculum includes the objective of "being able to make a good impression in a test"! The identification of such competencies, both social and intellectual, and of the processes of acquiring them remains a largely unexplored field.

4.3 When are competencies acquired?

This question is connected with the level of schooling from which it is considered that a pupil should be able to exercise and deploy a particular basic skill.

Among the range of key competencies envisaged, which ones are relevant to primary schooling? Which ones are supposed to develop during secondary schooling? Which, ones on the other hand, are only acquired subsequently, through various social experiences, especially through the training, occupational or unemployment situations experienced by young adults?

Considering the question of when individuals ought to develop key competencies also means defining the role of initial education and the role of continuing education. What about the development of competencies "throughout life"?

4.4 Whose key competencies?

We cannot define key competencies without asking who is supposed to acquire them. Reference was made earlier to the competencies that all young Europeans should develop. But it is well known that educational establishments for young people aged between 15 and

20 years take many forms and are organised along a variety of lines. How far can a global approach to education and the intended competencies be taken?

Should a key skill be seen as belonging, by definition, to the common stock of attainments of a given population, as well as forming part of a common core? Or should certain key competencies be considered, as it were, more "key" than others and applicable to an entire age-group, while others (which might be better termed "key qualifications") are more relevant to the peculiarities of a particular educational pathway or project?

This line of inquiry may be the current tendency related to reducing the number of educational profiles, which is resulting in the development of common cores. In the Swiss context, for example, the present reforms of both secondary education and vocational training are evidence of a desire to reduce the number of educational pathways.

4.5 Can key competencies be specially taught?

The question raised here concerns possible ways of teaching key competencies. Can the acquisition of a key skill be a direct aim to be achieved by a *cognitive education* type of strategy using special teaching methods and aids? Or is a key skill the often unforeseenable, indirect offshoot of a multitude of educational experiences and situations for which it is difficult to plan?

Research conducted in this field does not provide any straightforward answer; there are major methodological and theoretical difficulties in assessing the results obtained by learning programmes directly focused on the acquisition of cognitive and social competencies, so that the matter is still a controversial one. However, some recent studies cast doubt on the idea that the inculcation of a key skill can be channelled and shaped for its won sake through a set of systematic exercises.

4.6 Individual competencies and collective competencies

What is the situation regarding the exercise of collective competencies in educational establishments? Must the key competencies to be acquired by all young people necessarily be seen as *individual* competencies? Common competencies are certainly a matter of interest, but are they anything other than a set of competencies that each person should acquire individually?

A number of studies are currently dealing with the shared competencies that develop within groups or networks. Various working environments have been examined with the aim of establishing the nature and dynamics of collective competencies. In a firm, analysing a problem or making a diagnosis typically involves a collective skill, in the sense that it entails a complementary contribution from several individuals.

Will educational establishments go on confirming their attention to individual competencies because of the requirements of individual evaluation and certification? How would key competencies be treated in a shared skill context? The main challenge would then probably be to learn how to act with others by contributing one's own responsibilities and competencies, which are necessarily partial and limited but serve to complement those of others. Thinking in terms of collective competencies amounts to calling for what would probably be a highly radical change in educational culture.

Conclusion

In these introductory notes, I have attempted to provide a few guidemarks concerning the concepts of competencies and key competencies.

This initial overview does not claim to be exhaustive; other aspects could also have been discussed, particularly with regard to the transfer of competencies and the evaluation of key competencies. And the symposium will undoubtedly throw up many others.

It is hoped that these preliminary ideas will help the participants to find some avenues of inquiry so that the concerns that appear to be of major importance as well as those that prove to be common can be identified. An attempt can then be made to determine the most urgent issues and decide what further investigations should and could be encouraged by the symposium.

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Appendix

Questionnaire

In the list below, would you please:

1. supplement any sections you consider incomplete;

2. tick in column **A** the **12 key competencies** you consider all young Europeans should be able to acquire;

3. tick in column **B** the **6 key competencies** you regard as being particularly important for the building of Europe.

		A	B
Learning	Being able to turn an experience to account		
	Linking together and organising one's various pieces of knowledge		
	Organising one's own learning process		
	Being able to solve problems		
	Shouldering responsibility for one's own education		
Searching	Consulting differenct sources of data		
	Consulting people around one		
	Consulting an expert		
	Obtaining information		
	Being able to manage and file documents		
Thinking	Seeing the relationship between past and present events		
	Viewing this or that aspect of the development of our societies in a critical manner		
	Being able to cope with uncertainty and complexity		

	Positioning oneself in a debate and working out one's own opinion		
	Perceiving the importance of the political and economic contexts of educational and occupational situations		
	Evaluating social customs associated with health, consumption and the environment		
	Being able to appreciate a work of art or literature		
Communicating	Understanding and speaking several languages		
	Being able to read and write several languages		
	Being able to speak in public		
	Being able to defend and argue a point of view		
	Being able to listen to and take account of other people's views		
	Being able to express oneself in writing		
	Being able to read graphs, charts and data tables		
Co-operating	Being able to co-operate and work in a team		
	Taking decisions		
	Managing differences of opinion and conflicts		
	Being able to negotiate		
	Being able to establish and maintain contact		
Getting things done	Embarking on a project		
	Taking responsibilities		
	Becoming integrated into a group or community and contributing to it		
	Being able to organise one's own work		
	Demonstrating solidarity		
	Mastering mathematical and modelling tools		

Adapting oneself	Being able to use new information and communication technologies		
	Demonstrating flexibility vis-à-vis rapid change		
	Being able to devise new solutions		
	Showing tenacity in the fact of difficulties		
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General comments:

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Appendix IV

Agenda of the symposium

Wednesday 27 March 1996

Arrival of participants

8:00 p.m. Welcome buffet at the Bern Hotel

Thursday 28 March 1996

9:00 a.m. Opening ceremony of the symposium

Opening speeches by:

Mr Peter SCHMID, President of the Swiss Conference of Heads of Cantonal Departments of Public Education (CDIP)
Mr Maitland STOBART, Deputy Director of Education, Culture and Sport/Head of the Education Department (Council of Europe)
Mr Mil JUNG (Chairman of the symposium), Goverment adviser, Ministry of Education (Luxembourg)

9:30 a.m. *General introduction* (Mr Jean-François PERRET, Responsible for research of the Psychology seminar, Neuchâtel University)

Question for the working groups (Mr Walo HUTMACHER, Dr., *Chargé de Recherche au Séminaire de Psychologie de l'Université de Neuchâtel* – Switzerland)

10:30 a.m. Coffee break

11:00 a.m. Theme 1:*Competencies and knowledge* (Mr John COOLAHAN, Professor, National University of Ireland)

11:30 a.m. Working group on theme 1

12:30 a.m. Lunch

2:30 p.m. Continuation of the working group on theme 1

3:30 p.m. Coffee break

5:00 p.m. Round table with the rapporteurs of theme 1

6:00 p.m. End of the first day
Evening free

Friday 29 March 1996

9:00 a.m. Theme 2: *Individual competencies and the demands of society* (Mr Gabor HALASZ, National Institute of Public Education, Budapest, Hungary)

9:30 a.m. Working group on theme 2

10:15 a.m. Coffee break

10:45 a.m. Continuation of the working group on theme 2

11:30 a.m. Round table with the rapporteurs on the theme 2

12:30 a.m. Lunch

2:30 p.m. Theme 3: *Competencies and procedures* (Mr Bernard REY, Professor, *Chaire Internationale en Education, Université Libre de Bruxelles*, Belgium)

3:00 p.m. Working group on theme 3

4:30 p.m. Coffee break

5:00 p.m. Round table with the rapporteurs of theme 3

6:00 p.m. End of the second day

7:00 p.m. Aperitif offered by the Town and Canton of Berne, Rathaus (Town Hall)

8:00 p.m. Official dinner, Bern Hotel

Saturday 30 March 1996

9:00 a.m. General report and conclusions of the symposium by Mr Walo HUTMACHER
Debate

10:15 a.m. Coffee break

10:45 a.m. Round table on the *European dimension* animated by Mr Dominique BARTHELEMY, Adviser, Ministry of Education, Research and Training, Brussels, Belgium

11:30 a.m. Conclusions of the round table by Mr Raymond RYBA, Co-ordinator of the pedagogical material

12:00 a.m. Closing session

12:30 a.m. Lunch

Departure of participants

Appendix V

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